

Public Utilities

FORTNIGHTLY



November 9, 1939

**NO FORMULA FOR CHOOSING GOOD
CORPORATION DIRECTORS**

By Albert W. Atwood

“ ”

Will the TVA Pay Its Way?

By Martin G. Glaeser

“ ”

**Electric Power Utilities Should
Speak Up**

By William L. Mudge, Jr.

**PUBLIC UTILITIES REPORTS, INC.
PUBLISHERS**

104,048,950

ADVERTISEMENTS

sell Silex Glass Coffee Makers TO YOUR USERS—THIS FALL

As a figure 104,048,950 advertisements is almost impossible to comprehend. It is like a war debt. But broken down—by cities—by sales impressions on your users—this huge advertising drive means more load—for you.

INDIANAPOLIS has 81,049 native white families. This Fall Silex pours 866,451 combined circulation into this market. That is nearly eleven ads to each family. Eleven ads telling each one of Indianapolis users to buy a Silex Glass Coffee Maker. Eleven ads to increase Indianapolis load.

TULSA with 31,662 native white families get 434,485 Silex advertisements this Fall. Nearly fifteen ads to every family—every user. These ads will send Tulsa's load up. Increase Tulsa's KWH. For every Silex Glass Coffee Maker, sold, there is an average of 87 KWH to your load. And every Anyheat Control Model Silex Glass Coffee Maker sold adds an average of 97 KWH to your load.

SEATTLE a city of 87,602 native white families will receive 1,608,483 Silex ads this Fall—or over seventeen ads to every user. Seattle is fortunate—for this big campaign will send Seattle's load booming.

And so on down the list. Every town—every city—every metropolis in America—blanketed with Silex advertisements. All selling Silex Glass Coffee Makers—all increasing load.

Tie in with this tremendous, hard-hitting campaign. Capitalize on it. Use it to build your load.

Kitchen Range Model Silex Glass Coffee Makers \$2.95. Electric Table Models from \$4.95. 2 to 12 cup sizes. All models \$5.95 and over equipped with Anyheat control for providing flexible temperature control. Premium brand glass used exclusively.

THE SILEX COMPANY

Dept. 1116

HARTFORD, CONN.



Genuine **SILEX**
GLASS COFFEE MAKER
TRADE MARK REGISTERED U.S. PAT. OFF.

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)



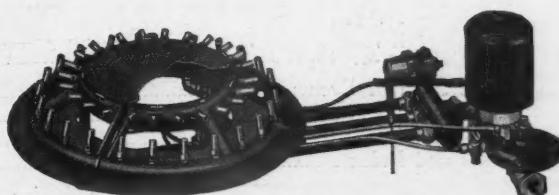


BARBER BURNERS Assure the Finest Flame Principle—Correctly Applied!



At the root of Barber Burners' success is a basic combustion principle embodied in the unique Barber Jet—a method which has never been approached in any other gas conversion burner. Fully protected by patent, abundantly tested by 20 years' experience, this Jet stands alone in *permanent efficiency*. Furthermore, all Barber Burners, round or oblong, are so adjustable as to fit accurately the boiler or furnace firepot, and to subject the heating surfaces to a direct "scrubbing" flame action, without the half-way measures of fire brick or refractory elements. Barber Burners generate maximum *resultful* heat with minimum fuel expenditure. Likewise do they generate sales appeal, pleasant customer relations, freedom from servicing—all GOOD BUSINESS for YOU!

- Standard Models come in 8 sizes for round grates 12" to 34" in diameter. There is also a wide range of sizes for oblong grates. Baltimore Safety Pilot. Listed in A. G. A. Directory of Approved Appliances. Ask for Catalog and Price List on Conversion Burners for Furnaces and Boilers, Burner Units for Gas Appliances, and Gas Pressure Regulators.



No. 324-B Barber Burner



No. 104-B Barber Burner

THE BARBER GAS BURNER CO., 3704 Superior Avenue, Cleveland, Ohio

● BARBER *Automatic* GAS BURNERS ●

For Warm Air Furnaces, Steam and Hot Water Boilers and Other Appliances

*Editor—HENRY C. SPURR
 Associate Editors—ELLSWORTH NICHOLS, FRANCIS X. WELCH, NEIL H. DUFFY
 Financial Editor—OWEN ELY*

Public Utilities Fortnightly



VOLUME XXIV

November 9, 1939

NUMBER 10

Contents of previous issues of PUBLIC UTILITIES FORTNIGHTLY can be found by consulting the "Industrial Arts Index" in your library.

Utilities Almanack	593
Power in the Service of Man	(Frontispiece) 594
No Formula for Choosing Good Corporation Directors	595
Will the TVA Pay Its Way?	Martin G. Glaeser 606
Electric Power Utilities Should Speak Up	William L. Mudge, Jr. 615
Wire and Wireless Communication	622
Financial News and Comment	Owen Ely 626
What Others Think	632
Industrial Relations and the Utilities	
A recent Analysis of the Working Capital Allowance	
An Appraisal of the Federal Pump-priming Movement	
The March of Events	641
The Latest Utility Rulings	650
Public Utilities Reports	655
Titles and Index	656
<i>Advertising Section</i>	
Pages with the Editors	6
In This Issue	10
Remarkable Remarks	12
Industrial Progress	36
Index to Advertisers	58

Q *This magazine is an open forum for the free expression of opinion concerning public utility regulation and allied topics. It is supported by subscription and advertising revenue; it is not the mouth-piece of any group or faction; it is not under the editorial supervision of, nor does it bear the endorsement of, any organization or association. The editors do not assume responsibility for the opinions expressed by its contributors.*

PUBLIC UTILITIES REPORTS, INC., PUBLISHERS

Publication Office CANDLER BUILDING, BALTIMORE, MD.
 Executive, Editorial, and Advertising Offices MUNSEY BUILDING, WASHINGTON, D. C.

PUBLIC UTILITIES FORTNIGHTLY, a magazine dealing with the problems of utility regulation and allied topics, including also decisions of the regulatory commissions and courts, preprinted from *Public Utilities Reports, New Series*, such Reports being supported in part by those conducting public utility service, manufacturers, bankers, accountants, and other users. Entered as second-class matter April 29, 1915, under the Act of March 3, 1879. Entered at the Post Office at Baltimore, Md., Dec. 31, 1936; copyrighted, 1939, by Public Utilities Reports, Inc. Printed in U. S. A.

PRICE, 75 CENTS A COPY

ANNUAL SUBSCRIPTION, \$15.00

NOV. 9, 1939

THE TRIDENT WITH...

Adjustable Delivery

1½" and 2"
STYLE 3



TRIDENT 1½" and 2" Style 3 Disc Meters are so designed that delivery can be regulated in relation to the line pressure to give the desired control over the rate of flow without interfering with operating efficiency. These meters, therefore, can be used economically on all systems, including those having widely varying pressures. Style 3 embodies interchangeable parts, the Oil-Enclosed Gear Train, and other features which have built Trident Meter leadership the world over.

Meter with cover removed, to show Delivery Adjustment and Oil-Enclosed Gear Train.



NEPTUNE METER COMPANY • 50 West 50th Street, NEW YORK CITY
Branch Offices in CHICAGO, SAN FRANCISCO, PORTLAND, ORE., DENVER, DALLAS, KANSAS CITY,
LOUISVILLE, ATLANTA, BOSTON.
Neptune Meter, Ltd., 101 Simcoe Avenue, Toronto, Canada.



Pages with the Editors

JUST by way of a change from the more depressing realities of the times, we note that the motion picture industry seems to be turning the corner, or completing the cycle, or something along that line, with respect to the Power Issue. (Remember the Power Issue?) Up to now, as Al Smith would say, the power industry has been dealt with pretty severely in the movies.

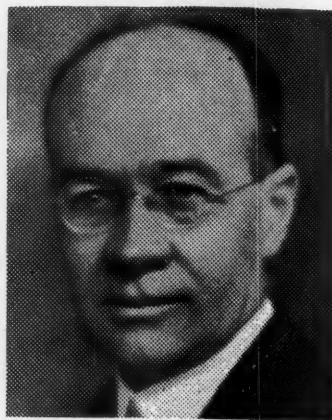
As far back as 1932, when the Federal Trade Commission investigation was at its sensational peak, Hollywood produced "The Washington Masquerade," with Lionel Barrymore and the beautiful but sinister Karen Morley, in which the Power Trust's hide was nailed on the American silver screen for all to hiss. Other occasional productions along the same line have appeared as recently as "Judge Hardy's Children" (1938), wherein the nefarious interests were shown to be still up to their old tricks in the Washington lobbies. This was, of course, in addition to that stirring anti-utility production, "Power," by the late lamented WPA theater project.

WELL, we got our surprise last week in attending a preview of Frank Capra's new picture, "Mr. Smith Goes to Washington," which seems destined to widespread popular success. It is in this picture that Hollywood has had the temerity to suggest, ever so vaguely, that a certain proposed "dam project" (which a dirty political machine had cleverly buried in a routine appropriation bill) was not strictly kosher—indeed, that it was reeking with graft.

THIS isn't much, we agree, to balance the anti-utility broadsides. But even so, we are afraid that Representative Rankin (D., Miss.) may be vexed if he sees this picture. How can any government dam project be corrupt? A fine idea to be putting into the minds of citizens and taxpayers! You'd better watch your step, Mr. Frank Capra and Columbia studios.

■

BUT corruption or no corruption, the final test of popular approval for government projects is going to lie chiefly in whether they can pay their way or not. During the joint congressional investigation of the TVA last year, for example, there was no question whatever about corruption, but there was considerable conflict of opinion as to whether TVA would ever pay out. An anti-TVA witness



ALBERT W. ATWOOD

Corporation directors: Some like them hot and some like them cold.

(SEE PAGE 595)

testified that he was pretty sure it never would, if all proper cost factors were given due consideration. Dr. A. E. Morgan, former TVA chief, was very doubtful, while the TVA witnesses expressed themselves more in terms of hopes for the future rather than actual results to date.

THIS was a year ago. More recently things seem to be looking up in the Tennessee valley and only a couple of weeks ago TVA Chief Power Engineer J. A. Krug was joyfully predicting that TVA's power operations would be out of the red by Christmas or shortly thereafter. He meant by this that electricity revenues for the current year would cover all power costs and common costs allocable to power and in addition return a reasonable interest rate on government funds. Thanks to the Commonwealth & Southern purchase, TVA is now serving almost five times as many customers as it did a mere nine months ago, and already has under contract all available hydro power from generating units now in operation.

BUT will TVA really pay for itself over the long range at present rate levels and with due regard for tax losses and other points which TVA critics like to bring up? That is the sub-

J&L SEAMLESS STEEL BOILER TUBES ASSURE
SAFETY AND ECONOMY IN THE MAINTENANCE
AND OPERATION OF YOUR BOILERS • • •



J & L Boiler Tubes keep boilers working efficiently and economically because into every length of J & L seamless tubes is built an extra margin of strength and safety. There are no welds; therefore, there can be no failure at or near a weld — boilers stay on the job longer with fewer costly shut-downs.

When replacements or repairs are necessary, J & L Boiler Tubes form easily, roll in faster and they "stay put." Installations in power and manufacturing plants all over the country are proving that J & L Seamless Steel Boiler Tubes help make maintenance dollars go further.

The next time you need boiler tubes, specify J & L Seamless. Make sure you get tubes that give you low installation cost and last longer. Write today for a copy of the J & L Seamless Steel Boiler Tube Bulletin.

JONES & LAUGHLIN STEEL CORPORATION

AMERICAN IRON AND STEEL WORKS
PITTSBURGH, PENNSYLVANIA

J & L — PARTNER IN PROGRESS TO AMERICAN INDUSTRY



PAGES WITH THE EDITORS (*Continued*)

ject covered in this issue (beginning page 606) by DR. MARTIN G. GLAESER, professor of economics at the University of Wisconsin. The activities of DR. GLAESER (Ph.D., Harvard, '09) in teaching, writing, and research work on the subject of public utilities are too well known to warrant further review here. He is Mr. Krug's predecessor as TVA chief power planning engineer. Incidentally, Mr. Krug is one of DR. GLAESER's former students. The author has also served on the staff of the Wisconsin Public Service Commission (1909-18).

AFTER we had read the leading article in this issue by ALBERT W. ATWOOD, we couldn't get over the impression that picking a director for a corporation is, after all, a good bit like picking a wife. Some corporations are inclined towards picking the affluent citizen to decorate the board, while others favor the elevation of an inside candidate who knows more about taking care of the particular corporation's housekeeping duties. But if marriage is a lottery, the picking of corporate directors is a veritable grab bag. Sometimes the best laid plan and guiding principles seem to go awry, while, on the other hand, lucky strike directors often turn out to be surprising successes.

WHAT rule should a utility company follow? Mr. Atwood is not very conclusive on this point because he obviously doesn't believe that there can be any hard and fast rule for picking directors for a utility corporation or any other kind of corporation. However, it is a provocative discussion and one that is not very often brought out into the open. FORTNIGHTLY readers will recall Mr. Atwood, not only for his previous articles in these pages, but for his long tenure as chief editorial writer of *The*

Saturday Evening Post (1927-37). Prior to that he did editorial duty on the *New York Press*, *McClures*, *Harpers Weekly*, and *Review of Reviews*. He is now a resident of the District of Columbia, where he is the president of the local Phi Beta Kappa Association and is otherwise active in civic, literary, and academic affairs.

WILLIAM L. MUDGE, JR., whose article on the duty of electric utilities to defend themselves appears in this issue (page 615), is a newcomer to the FORTNIGHTLY pages, but he has contributed to other magazines from time to time. He was born and reared in Pennsylvania, being the son and grandson of clergymen, and educated at Princeton University where he was an honor student in the department of economics and finance. Since his graduation in 1935, Mr. MUDGE has been employed in the executive division of one of the large eastern utility systems.

JUST by way of showing that we still know there is a war going on, we are planning to bring out in our next issue an article by one of our more entertaining and analytical contributors, Fergus J. McDiarmid, well-known Indiana insurance executive, who tells us how the British finance their public utilities.

Two other featured articles by noted professional writers are scheduled for the same number. T. A. Sandifer, Washington journalist, considers the utilities as a possible tax target for old-age pension and other expensive social reforms. James H. Collins, California editor and writer, will bring us some fresh ideas on utility labor relations.



MARTIN G. GLAESER

TVA is all ready to throw away its Federal financial crutches and earn its keep.

(SEE PAGE 606)

NOV. 9, 1939

AMONG the important decisions preprinted from *Public Utilities Reports* in the back of this number, may be found the following:

THE Virginia commission discusses the law governing radio broadcasting and the interstate character of radio. (See page 129.)

IN three recent cases the public utility status of co-operative electric associations is considered. (See pages 173, 185, 189.)

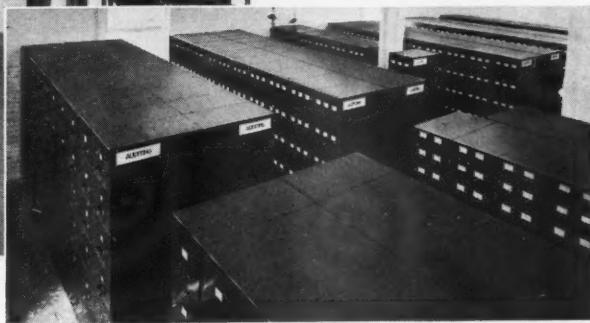
THE question whether or not the commission has jurisdiction over taxicab operation where vehicles are rented without the services of a driver is considered by the North Dakota commission. (See page 188.)

THE next number of this magazine will be out November 23rd.

The Editors



Two views of Inactive Record Rooms established by the San Antonio Public Service Company.



How To Organize An Inactive Record Room

For electrical utilities facilitating compliance with the Federal Power Commission's Order No. 54. For gas and water companies providing close control over priceless assets.

THE EXPERIENCE OF THIS LARGE TEXAS UTILITY CAN BE DUPLICATED RIGHT IN YOUR OFFICES

The San Antonio Public Service Company, like your own organization, had accumulated records for years. Every available corner was filled with them. There seemed no end to the flow of inactive, but still valuable accounting records, correspondence and forms. The space problem became pressing. The reference problem grew serious.

A PLAN IS ESTABLISHED

It was decided to bring inactive records under control. Remington Rand was invited to prepare suggestions. Our blueprints demonstrated practical arrangements for three new Inactive Record Rooms, each to serve adjacent departments. Our equipment recommendations revealed compactness, flexibility, accessibility, never previously experienced. Over two thousand Remington Rand Steel Transfer Cases were installed—in drawer sizes that matched the various records they held. A new era of record usefulness

began at the San Antonio Public Service Company.

A SPECIALIZED SERVICE

Remington Rand frequently assists in the organization of Inactive Record Rooms. Our Public Utility representatives are particularly able to render this service. For electric companies they facilitate compliance with the Federal Power Commission's Order No. 54 governing record preservation. For gas and water companies they set up procedures and devise floor plans that bring valuable papers under strict control.

SEND FOR THIS NEW BOOKLET

A new Remington Rand booklet, "Retention and Control of Inactive Records", will give you the facts you need for setting up an Inactive Record Room. It's yours—free of cost and obligation. Use the coupon!

Remington Rand Inc.
BUFFALO • NEW YORK
BRANCHES EVERYWHERE

**Send
for this
Booklet**

Please send me at once
"Retention and Control
of Inactive Records",
LB-228. No obligation!

Name
Company
St. & No.
City & State

In This Issue



In Feature Articles

- Choosing good corporation directors, 595.
 Walker report on AT&T, 596.
 Corporate director problem, 598.
 Compensation for directors, 600.
 Large stockholders as directors, 602.
 American system of directorates, 604.
 Wisdom of Federal investment in TVA, 606.
 Liquidation study of power costs, 607.
 Estimates of liquidation, 609.
 Power investment estimates, 613.
 Electric power utilities should speak up, 615.
 Public and private utility ownership surveys, 616.
 Encouragement of community interest, 618.
 Electrification of nation by regulated private industry, 620.
 Wire and wireless communication, 622.

- A recent analysis of the working capital allowance, 635.
 An appraisal of the Federal pump-priming movement, 638.

In The March of Events

- Federal power units consolidated, 641.
 Power pool suggested, 641.
 SEC stills rumor, 642.
 TVA held major link, 642.
 St. Lawrence seaway development, 642.
 Mexico surveys projects, 642.
 News throughout the states, 642.

In Financial News

- Another "putsch" against utilities, 626.
 New financing, 627.
 Associated Gas & Electric, 628.
 Three-year appliance credit criticized, 629.
 Corporate news, 630.
 Earnings statements of leading utility systems, 631.

In The Latest Utility Rulings

- Expenditures to attract and hold large gas consumers, 650.
 Manufacturing company cannot legally submeter electricity, 651.
 Contract for wholesale service can be terminated without commission authority, 651.
 Right to intervene in commission proceeding, 652.
 No service denial to enforce payment for fire protection, 653.
 Segregation required to fix municipal plant rates for outside service, 653.
 Miscellaneous rulings, 654.

In What Others Think

- Industrial relations and the utilities, 632.

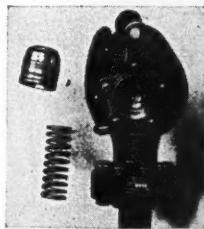
PREPRINTS FROM PUBLIC UTILITIES REPORTS

*Various regulatory rulings by courts and commissions reported in full text,
 pages 129-192, from 30 P.U.R.(N.S.)*



VULCAN VALVE HEAD, LG-1

The Vulcan Automatic Valve Operating Head is an advanced development for the high and ever increasing higher pressure and temperature conditions encountered in modern steam plants. Simplicity is the keynote in design and construction. A piston valve steam actuated thru a pilot valve provides positive operation—makes Vulcan Automatic Heads the greatest step ahead in Soot Blower Design in the past 15 years.



VULCAN VALVE ASSEMBLY

Vulcan Valves of completely corrosion resistant materials and stainless steels are designed for immediate accessibility; they are so successfully designed that of thousands in use no valve of this type has ever failed in service. Vulcan construction permits adaptation to every increase in pressure for modern boilers—no valve stems to break—no opening or closing against steam pressure—no regrinding of valves is ever required—valve packing is eliminated. All Vulcan Heads are equipped with Vulcan pioneer Under Arm Supports which have eliminated warpage of elements.

Lowest Cost? . . . NO! Highest Quality? emphatically YES!

—**VULCAN**—
SOOT BLOWERS

—are built with but one object—to provide industry with the highest quality equipment of this type it is possible to build. Every steam plant offers new problems in soot removal—Vulcan Engineers have successfully solved thousands of such problems. Vulcan installations are soundly designed, individually designed to do their work efficiently and economically—to cut fuel costs and provide real savings in steam production.

From the desks of design and layout engineers to drafting room to factory craftsmen and to field service, Vulcan personnel takes pride in providing a personalized installation, built to exacting standards for long service and economical operation—backed by a record of lowest maintenance. Ask the Vulcan Engineer representative why Vulcan must build to highest standards only.



VULCAN VALVE DETAIL

Vulcan Soot Blower Corporation • Dubois, Pa.



Remarkable Remarks

"There never was in the world two opinions alike."

—MONTAIGNE



FRANCIS T. MALONEY
U. S. Senator from Connecticut.

EDITORIAL STATEMENT
The Dallas Morning News.

JOHN E. RANKIN
U. S. Representative from Mississippi.

DONALD A. CALLAHAN
Former member, Idaho State Senate.

HARRY FLOOD BYRD
U. S. Senator from Virginia.

DALE MILLER
Associate editor, The Texas Weekly.

EXCERPT FROM
Report of National Resources Committee.

JOSEPH C. HUTCHESON, JR.
Judge of the United States Court of Appeals, Fifth Circuit.

ELMER A. SMITH
General Attorney, Illinois Central System.

"As Americans, we all naturally abhor regulation."

"The old dealers nominate for Thanksgiving Day the last day in the New Deal."

"We must wrest all the American people from the bondage of the power trust. This nation cannot remain 'half slave and half free.'"

"Neither the labor board [NLRB] nor its agents believe that an independent union can possibly be free from employer domination."

"I believe that for every dollar the government borrows and spends in pump priming, private enterprise is deterred from spending two."

"The institution of banking is so ponderously dignified and self-effacing that it doesn't know the first principles of swaying public opinion."

"It is difficult in the long run to envisage a national coal policy or a national petroleum policy or a national water-power policy without also in time a national policy directed toward all these energy producers—that is, a national energy resources policy."

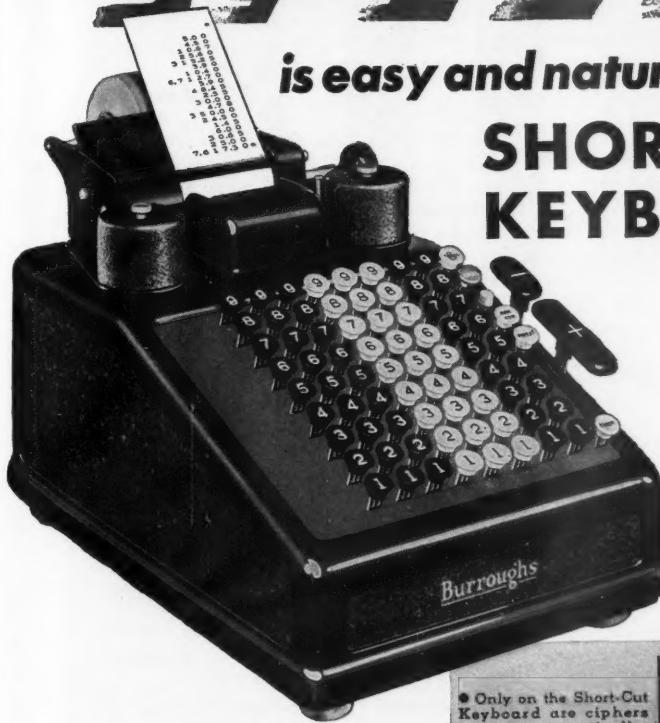
"...judging is not a matter of paste pot and scissors, of assembling what was said by them of old-time, of keeping life in, or of raising from the dead, the bodies of old cases, no matter how lovely or appealing they once were. Judging is administration in the highest sense."

"If it be in the public interest, and it is, to regulate carriers by rail, it must be in the public interest to regulate their competitors on the waterways. The importance of bringing about an equality in regulation between the railroads and the water lines cannot be overemphasized."

Burroughs

S P E E D

**is easy and natural on the
SHORT-CUT
KEYBOARD**



It's easy to add fast and accurately on a Burroughs because the Short-Cut Keyboard eliminates all needless operations.

Let the Burroughs representative show you how much time and effort the Short-Cut method can save you on *your* work. Call the local Burroughs office today.

BURROUGHS ADDING MACHINE CO.
6910 SECOND BOULEVARD, DETROIT, MICH.

- Only on the Short-Cut Keyboard are ciphers written automatically. Thus, much of the work is done without touching a key.

- Only on the Short-Cut Keyboard can two or more keys be depressed at one time. This saves many needless operations.

- Only on the Short-Cut Keyboard can an entire amount and the motor bar be depressed together, thus listing and adding amount in one operation.

ALL CIPHERS
ARE
AUTOMATIC

SEVERAL KEYS
CAN BE DEPRESSED
AT ONE TIME

ENTIRE AMOUNTS
CAN BE WRITTEN
IN ONE OPERATION

REMARKABLE REMARKS—(*Continued*)

ROBERT H. JACKSON
*Solicitor General of the
 United States.*

" . . . each generation rewrites the law for itself. That this rewriting was long resisted and delayed leaves upon this particular day a larger share than usual."

DAVID SARNOFF
*President, Radio Corporation of
 America.*

"Through television, coupled with the universal increase in schooling, Americans may attain the highest general cultural level of any people in the history of the world."

D. P. STRICKLER
*President, Stratton Cripple Creek
 Mining & Development Company.*

"When these [Federal] administrative bodies reach the point where they refuse to be bound by decision of the courts, it is time we take their powers away and place them under the courts."

FLOYD L. CARLISLE
Chairman of the Board, Consolidated Edison Company of New York.

"For more than thirty years the electric utilities of this country have in most instances been regulated by the states. We have been able to grow and prosper under such regulation, and there has been a tremendous expansion in the use of our services under it."

EVERETT M. DIRKSEN
U. S. Representative from Illinois.

" . . . it [the TVA] is an empire unto itself that combines every function now exercised by this government. Soon we shall be able to abolish the Interstate Commerce Commission, the Bureau of Chemistry and Soils, the state governments of the seven states in the TVA area, and let TVA march on."

RECOMMENDATION FROM Report of National Resources Committee.

"We believe that the problems of the bituminous coal industry are too large for any one state to solve. The intensity of interstate competition makes the ills of the industry a matter of national concern and Federal responsibility. Some form of Federal regulation of bituminous coal is clearly necessary."

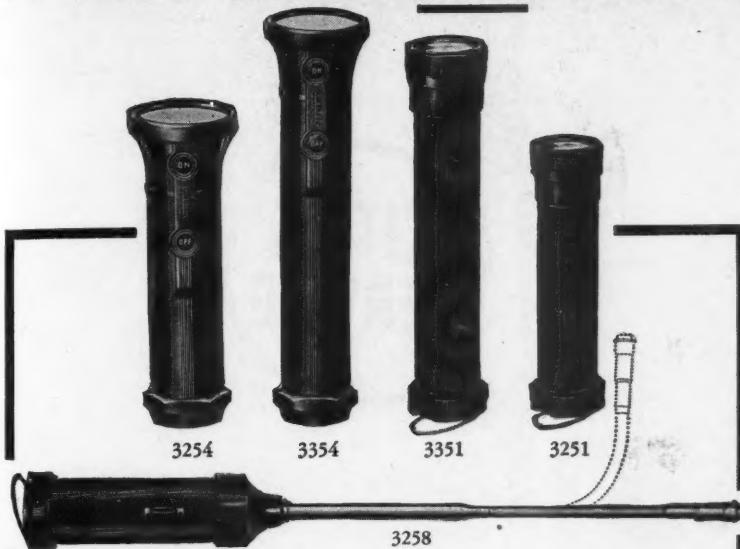
CLARENCE A. DYKSTRA
President, University of Wisconsin.

"Among other things we need just now is a widespread understanding of the fact that under our traditional check-and-balance system and with the shifting that is going on in the field we call the division of powers in our Federal system, it is extremely difficult to the point of being impossible to get and keep any national responsible leadership in a legislature chosen as is ours."

ROBERT E. HEALY
Member, Securities and Exchange Commission.

" . . . the Holding Company Act does not mean a death sentence for the utility industry or for the utility holding company . . . It does not mean that there is to be a dictatorship over the utility industry. It does not mean the nationalization of the utility industry. Whether you would oppose nationalization of electric power or whether you would favor it, you will not find it in the Holding Company Act, or in its administration."

Which one do You want?



LOOK OVER THIS GROUP of fine new "Eveready" on-the-job flashlights, specially designed to meet the special needs of oil men and electricians.

The new WATERPROOF Flashlights, 3354 and 3254, are *completely covered*, switch-and-all, with a soft rubber sleeve. Unbreakable lenses, chrome plated reflectors. Proof against hot wires, acids, gasoline, oil, alcohol, greases and dirt.

The two and three cell general purpose Industrial Flashlights, 3251 and 3351, have unbreakable lenses, hand-replaceable switches are cased in semi-hard rubber. Safe with "hot stuff." Unaffected by water, oil, gasoline, alcohol, acids or dropping impact. No. 3258, the new Flexible Extension Flashlight, answers the demand for a safe light for inspecting moving machinery, railway journal boxes, drums, barrels, sounding pipes.

NATIONAL CARBON COMPANY, INC.

General Offices: New York, N. Y.; *Branches:* Chicago, San Francisco

Unit of Union Carbide UCC and Carbon Corporation

The word "Eveready" is the trade-mark of National Carbon Co., Inc.

CONFIDENCE



*Whether You Buy A Tankful Of Gasolene
Or A Carload Of Oil—You Can Be Sure Of
The Quality Of CITIES SERVICE PRODUCTS*

THE QUALITY of Cities Service gasolines and oils is guarded every step of the way from the oil well to you. For Cities Service Oil Company is a completely integrated unit in the oil industry, engaged in all phases of petroleum operation . . . production, transportation and refining. The finished products, backed by years of refining experience, reach you through 16,000 reliable outlets. The Cities Service emblem is your guarantee of dependable products and efficient, courteous service.

CITIES SERVICE



Serves A Nation!

"IT'S SERVICE THAT COUNTS, AS WELL AS SAVING MONEY

*I'm Getting Both
On My
Boiler Insurance"*



Remember, when it comes to Boiler and Machinery insurance, there are two things that are important—you get them both with Lumbermens.

First of all, you want the assurance that every possible step is being taken to prevent any loss to you. This you secure first through Lumbermens broad policy which provides financial indemnity against insurable losses and secondly, through Lumbermens engineering service which prevents accidents and thereby reduces uninsurable losses.

Lumbermens offers you an inspection service by trained specialists holding licenses issued by the highest recognized authorities. These men average twenty-three years of experience in the manufacture, inspection and maintenance of boilers and machinery. Through their efforts, costly shut-downs and repairs are avoided and the suggestions they bring have

saved Lumbermens' policyholders many thousands of dollars.

The second thing you want from your insurance is low cost. In Lumbermens you pay the so-called standard rates. Lumbermens' policyholders, however, have always received cash dividends each year since organization, resulting in a substantial saving on the cost of their protection. The rate on Boiler and Machinery insurance has never been less than 25% of the premium resulting in an outright saving of one-quarter of the boiler policy-holder's insurance cost.

Learn today about this opportunity to reduce your Boiler and Machinery insurance cost with safety. Send in the coupon below for full information.

LUMBERMENS MUTUAL CASUALTY COMPANY

James S. Kemper, President

Mutual Insurance Building, Chicago, U. S. A.

Operating in New York as (American) Lumbermens Mutual Casualty Company of Illinois

Save With Safety in the "World's Greatest Automobile Mutual"

Please send me full information about Lumbermens inspection service and tell me how I may save money on my Boiler and Machinery insurance through Lumbermens.

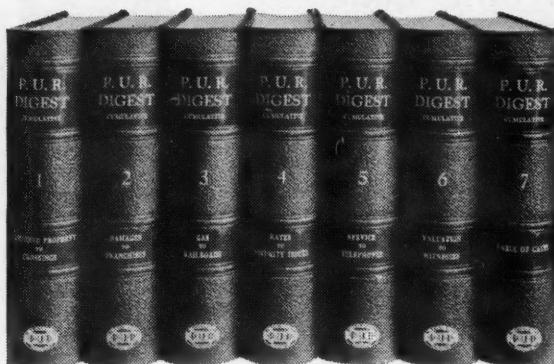
Name

Address

City State

P. U. R. DIGEST

CUMULATIVE



A Digest That Is Serviced

The Only Complete Digest of Public Service Law and Regulation

A WORK OF PRIMARY AUTHORITY CONTAINING THE DECISIONS AND RULINGS OF THE

A SHORT CUT
COVERING
FIFTY YEARS

AN EXHAUSTIVE
SURVEY OF
THE LAW

United States Supreme Court
United States Circuit Courts
of Appeals
United States District Courts
State Courts
Federal Regulatory
Commissions
State Regulatory Commissions
Insular and Territorial Regu-
latory Commissions

SIMPLE
ALPHABETICAL
CLASSIFICATION
OF SUBJECTS
A GREAT REVIEW
A GREAT SERVICE

WRITE FOR PRICE AND PAYMENT PLANS

PUBLIC UTILITIES REPORTS, INC.

Tenth Floor, Munsey Building, Washington, D. C.



**IF YOU'RE LOOKING
FOR TRUCK FEATURES**

... . . . *Look at the FORD!*

WHEN the Ford Motor Company speaks of truck features, it doesn't mean "gadgets." Ford features are outstanding qualities incorporated in the Ford Truck to make it tougher, more rugged, more dependable, more economical—or to make the unit easier to handle and operate, give added protection to the load and contribute to safety.

Shown here are a few important Ford features for 1940. There are many more which you're invited to see at your Ford dealer's. Make a note of them. Compare them with the features offered in other trucks of about the same price — or any price. Arrange for an "on-the-job" test

and see what these features mean in performance and economy before you spend another truck dollar.

**FORD COMMERCIAL CAR
FEATURES FOR 1940**

- Choice of 2 V-8 engines, 85 or 60 hp
- Three-quarter floating rear axle
- Big hydraulic brakes
- Longer front springs
- Interleaf spring lubrication
- Semi-centrifugal clutch
- Torque-tube and radius-rod drive

FORD V-8 TRUCKS

**FORD MOTOR COMPANY, BUILDERS OF FORD V-8 AND MERCURY CARS,
FORD TRUCKS, COMMERCIAL CARS, STATION WAGONS AND TRANSIT BUSES**

CRESCE

NT INSULATED WIRE and CABLE

*Used
in
the
Oil
Fields*



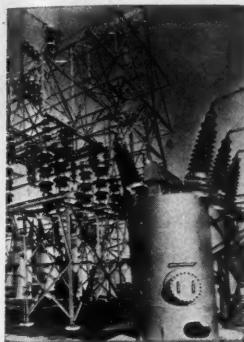
When you have a tough job you need a tough cable—one that is non-kinking, has high tensile strength, dependable conductivity, maximum flexibility and is resistant to water, acids, alkalis, oil, grease and excessive heat. For such conditions, CRESCENT IMPERIAL NEOPRENE Jacketed Cords and Cables are made to order for you.

For Complete Information Send for New Bulletin

CRESCENT
INSULATED WIRE & CABLE CO., INC.
TRENTON, NEW JERSEY

All types of Building Wire and all kinds of Special Cables to meet A.S.T.M., A.R.A., I.P.C.E.A., N.E.M.A., and all Railroad, Government and Utility Companies' Specifications.

CONTROL CABLE
DROP CABLE
LEAD COVERED
CABLE
MAGNET WIRE
PARKWAY CABLE
RUBBER COVERED
POWER CABLE
SERVICE ENTRANCE
CABLE
SIGNAL CABLE
VARNISHED CAMBRIC
CABLE
WEATHERPROOF
WIRE



For Fifty Years— a Favorite with Utilities

EVEN in the early nineties when the use of storage batteries was often regarded as a cloak for poor engineering, there were progressive utility companies that defied tradition and blazed the trail by using Exide-Chloride Batteries.

Today that trail is a broad and well defined highway. The use of storage batteries—and particularly Exide-Chloride Batteries—plays an important part in the efficient operation of the world's leading utilities.

Write for information on this outstanding battery for stationary service.

Exide
CHLORIDE
BATTERIES

THE ELECTRIC STORAGE BATTERY CO.

*The World's Largest Manufacturers of Storage
Batteries for Every Purpose*

PHILADELPHIA

Exide Batteries of Canada, Limited, Toronto



Sangamo Meters in "A" and "S" Mountings

Sangamo modern meters, whether singlephase watthour meters—combination singlephase watthour meters and time-switches, with either single or two-rate registers—or two-element watthour meters—all are designed for modern "A" and "S" mountings.

Modern Meters for Modern Loads!

SANGAMO ELECTRIC COMPANY

SPRINGFIELD, ILLINOIS

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

All-Alloy RIDGID

The ONLY
Pipe Wrench That
Guarantees You a
Repair-Proof Housing

★
UNCONDITIONAL GUARANTEE

If this Housing ever
Breaks or Distorts we
will replace it Free

COPR. 1937
THE RIDGE TOOL CO.
ELYRIA, O.

Work can't break that housing—nor warp it. You waste no time or money on repairs. Adjusting nut can't bind, always spins easily in all sizes, 6" to 60". Powerful replaceable slip-proof chrome molybdenum jaws, handy pipe scale on hook-jaw. Comfort grip I-beam alloy handle. No wonder millions prefer the RIDGID.

To virtually eliminate wrench repair expense, further safeguard your workmen and to step up efficiency — buy the Guaranteed RIDGID from your Supply House.



THE RIDGE TOOL COMPANY, ELYRIA, OHIO

RIDGID PIPE TOOLS

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

HERE'S MORE INCOME FROM GAS RANGES FOR YOUR SALESMEN!

More Income is to the point, gives the salesman a whole battery of facts in the briefest possible form, shows him how to bring those facts to bear in order to overcome every type of sales resistance. Here are some of the subjects treated:

Picture of your prospects, Who they are and where they are; Picture of their motives, Why they buy and why they don't; Picture of their minds, What they know and don't know about gas ranges; Picture of gas range selling, How to improve your selling score; What chance have you to make record sales this year?; And now let's take a look at the average kitchen; How women can save money with oven-heat-control; Facts on baking; Facts on roasting.

Write today

for FREE copies for your staff!

ROBERTSHAW THERMOSTAT COMPANY
YOUNGWOOD, PA



New as it is, this sales manual has already become the most used and best liked of all Robertshaw's range-selling tools. It is today standard equipment for thousands of salesmen, inspiring them with whole-hearted enthusiasm, giving new ideas which they can convert into bigger sales.

What sales executives are saying

"Hearty commendation!" . . . "Treasure chest of concise factual information!" . . . "Excellent!" . . . "Much impressed!" . . . "Covering complete sales picture!" . . . "Received by salesmen eagerly, enthusiastically!" . . . "Should increase our sales materially!" . . . "Compliments for achievement!" . . . "A contribution to the building of the industry!"



FOR COMMERCIAL APPLIANCES *Hidden Losses* is doing a job comparable to that which *More Income* is doing for the domestic gas range. Send for a free copy and you'll see how effectively you can use it to step up your commercial sales.



Plain Hoss Sense
 + good basic quality
 + up-to-date design
 = **SUPERIOR**
REG. U. S. PAT. OFF.

★ ★ PRODUCTS

THE SUPERIOR SWITCHBOARD & DEVICES CO.
 CANTON, OHIO

★ Manufacturing ★

METER & RELAY TEST SWITCHES METER TEST BLOCKS & TABLES
 METER & TRANSFORMER ENCLOSURES



**WALL "BIG BRUTE"
 DREADNAUGHT**
 Splicers' Furnace

Designed and built for
 PUBLIC UTILITY SERVICE

- EXTRA WIDE TANK
- HINGED FLUE
- HEAVY BURNER WITH
- REMOVABLE JET BLOCK
- KEROSENE OR GASOLINE

ADOPTED AS STANDARD BY MANY OUTSTANDING POWER AND TELEPHONE COMPANIES.

P. WALL MFG. SUPPLY CO.
 PITTSBURGH, PA.

H

9, 1939
ES

Transmission line construction costs can be materially reduced and completion expedited by using Hoosier Crews



HOOSIER ENGINEERING COMPANY

CHICAGO

46 SO. 5TH ST., COLUMBUS, OHIO

NEW YORK

Canadian Hoosier Engineering Company, Ltd.
Montreal

ERECTORS OF TRANSMISSION LINES

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

GMC

Gives You the *Right Truck* for each job

• THE TRUCK OF VALUE •

Standardization on GMCs CAN SAVE YOU MONEY

GMC trucks give you the most *usable power, best performance, longest fuel mileage*. But there's another big reason why fleet owners are finding it profitable to standardize on GMCs for every hauling job. Service and maintenance operations are greatly simplified when all trucks in your fleet are GMCs. Parts inventories can be reduced. You save on jigs and special tools. Let GMC help you cut truck expense to the bone.

Most Complete Line in the Industry!	
1/2-ton	Chassis, Panels, Pickups, Stakes, Suburbans
3/4-ton	Chassis, Panels, Pickups, Stakes
1-1 1/4-ton	Chassis, Panels, Pickups, Stakes, Cab-Over-Engine
1 1/4-2-ton	Chassis, Panels, Pickups, Stakes, Cab-Over-Engine
2-ton	Conventional and Cab-Over-Engine Models
2 1/2-ton	Conventional and Cab-Over-Engine Models
3 1/2-ton	Gasoline and Diesel, Conventional or Cab-Over-Engine
4-ton	Gasoline, Conventional or Cab-Over-Engine
5-ton	Gasoline and Diesel, Conventional or Cab-Over-Engine
6-ton	Gasoline and Diesel, Conventional or Cab-Over-Engine
7-ton	Gasoline and Diesel, Conventional or Cab-Over-Engine
8-ton	Gasoline and Diesel, Conventional or Cab-Over-Engine
Super-Duty Trucks up to 15-tons Capacity	

Our own YMAC Time Payment Plan assures you of lowest available rates

GMC TRUCKS TRAILERS - DIESELS

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

HANDEE TOOL OF 1001 USES

FOR PLANT USE OR FOR RESALE
THROUGH YOUR STORES

The Handee is really a small "power house" that can be carried to any part of your plant and used wherever there is an electric outlet, to repair some hard-to-get-at part on a machine without removing the part — to smooth off rough edges — to bore tiny holes in metals — to clean delicate mechanisms, etc.



*Save
Hours of
Hand Work*

Grinds	Engraves	Cleans
Drills	Sharpens	Sands
Polishes	Carves	Saws, etc.

The Handee uses 300 accessories. Used and endorsed by mechanics, repairmen and hobbyists. Weighs only 12 ounces. Speed 25,000 r.p.m. Nationally advertised at \$18.50 with 6 Accessories.

CHICAGO MOUNTED WHEELS OF V/T SUPER BOND

150% Longer Life

V/T Super Bond is the greatest forward step in 30 years. Chicago Mounted Wheels made of it have 150% to 300% longer life, according to tests in many plants on snagging and exacting operations. Will not ridge on welds, sharp corners, sinking dies, barbering, etc. They're tougher, can take more punishment, grind more pieces per wheel, faster and without sacrifice of cutting action. There's a shape and size to handle every grinding job.

Let us send you a V/T Super Bond Wheel without cost or obligation. Tell us the kind of job, type of equipment you use and size wheel preferred.

Send for Catalog of Complete Line

CHICAGO WHEEL & MFG. CO.

Makers of Quality Products for 40 Years

1101 W. Monroe St., Dept. PU, Chicago, Ill.

...Subject to
**E·T·L
TEST**

• What do you buy in large quantities? Meters, cable, pipe, linesmen's tools, all down the line in operating equipment quality is the keynote that spells durability and performance. But "equal quality" is sometimes hard to determine.

Let E. T. L. help you solve this difficulty. Give us your specifications and we'll develop the necessary test procedure to check products offered to you against these standards. Then when you buy, you "know by test."



Over 40 years in the know by Test business

**Electrical Testing
Laboratories**

East End Ave and 79th St - New York, N.Y.





MAGIC* MARGIN ONLY ROYAL HAS IT!

OPERATORS AGREE "It's wonderful. MAGIC Margin makes the setting of margins a simple, automatic operation . . . It saves time—helps us turn out neater, more accurate typing faster."

"And that isn't all," these girls will add. "We like the New Easy-Writing Royal because it is *modern* throughout. Every feature, every control, is expertly designed to give the best results with the least effort. There is no reaching or stretching—no straining of eyes, fingers, arms or nerves."

Give the New Royal THE DESK TEST . . . Compare the Work!

*Trade-mark, Reg. U. S. Pat. Off.



Copyright, 1939, Royal Typewriter Company, Inc.

ROYAL

MORE THAN EVER WORLD'S NO. 1 TYPEWRITER

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

THEIR PURPOSE—

To reduce your cost of Distribution



HERE is a group of products, differing in application, but designed with a common objective in mind—the lowering of electrical-distribution costs.

J-M Electrical Products are offered in the belief that the best means to lasting distribution economies lie in the installation of materials that are in themselves permanent. Mineral in composition, all J-M Electrical Products are inherently durable . . . highly fire-resistant. Consider the following:

TRANSITE CONDUIT, permanent, incombustible and so strong it ends need for concrete envelopes, cuts installation costs and saves on maintenance.

TRANSITE KORDUCT is the thin-walled, economical yet equally permanent conduit for enclosure in concrete.

J-M CABLE FIREPROOFING providing maximum cable protection at minimum cost. Permanently effective, easily and economically applied.

ASBESTOS EBONY, the perfectly balanced material for switchboards, switch bases, etc.

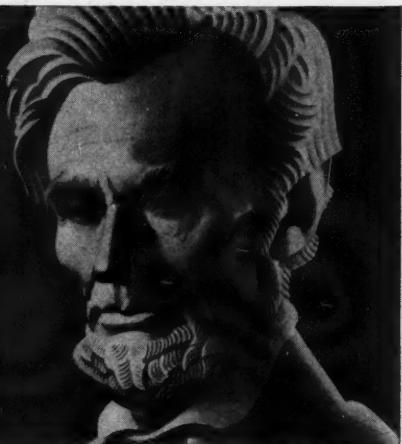
TRANSITE ASBESTOS SHEETS, for years the leading fireproof material for switch barriers, fuse boxes, cell structures and similar applications.

All of these products guarantee permanent savings . . . savings that come with cheaper installation, reduced operating expense, virtual freedom from maintenance. Each installation aids in effecting notable reductions in your distribution investment. For complete details, write Johns-Manville, 22 East 40th Street, New York City.



Johns-Manville

ELECTRICAL PRODUCTS



AT THESE LOW RATES

You Can Really Afford to Carry
Ample Life Insurance Protection

Here is a policy that protects you for your expectancy of life.* It also has cash and loan values. Rates

Age	Monthly Rate Per \$1,000
15 . . . . .	.83
20 . . . . .	.90
25 . . . . .	.99
30	1.12
35	1.28
40	1.54
45	1.88

THIS low-cost policy cannot be issued in amounts less than \$2,500.

At age 35 a \$10,000 policy costs you only \$12.80 per month and will pay your beneficiary either \$10,000 at your death or a monthly income for life. Write us for full details, stating age. Use the coupon below.

More than \$995,000,000 Insurance in Force

THE LINCOLN
INSURANCE
FORT WAYNE



NATIONAL LIFE
COMPANY
INDIANA

ITS NAME INDICATES ITS CHARACTER
*According to actuarial experience

MAIL THIS COUPON

THE LINCOLN NATIONAL LIFE INSURANCE CO.
Dept. U.F. 17 Fort Wayne, Indiana

Please send me full details about your Life Expectancy Plan, which provides ample protection at low rates.

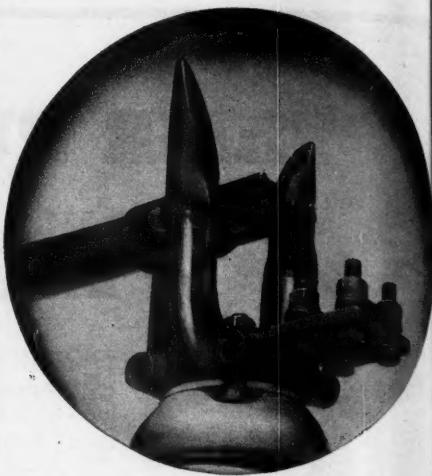
Name _____

Address _____

City _____

State _____

Present Age _____



HI-PRESSURE CONTACTS

characterize all

R & I E SWITCHING EQUIPMENT

The Hi-Pressure contact, a feature originated by The Railway and Industrial Engineering Company, has revolutionized modern switch design. Switch contacts are wiped clean of dirt, corrosion, metal oxides, etc., with each operation and a clean metal to metal contact is assured.

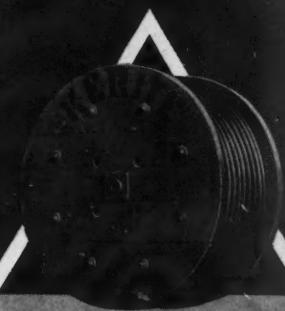
Pressure is constant, assuring a contact which is free from the arcing or spitting which interferes with proper radio reception.

The original Hi-Pressure contact switches have been giving satisfactory service under all operating conditions for many years.

RAILWAY & INDUSTRIAL
ENGINEERING CO.
GREENSBURG, PA.

Sales offices in principal cities

This page is reserved under the MSA PLAN
(Manufacturers Service Agreement)



The careful investor judges a security by the history of its performance.

KERITE

in three-quarters of a century of continuous production, has established a record of performance that is unequalled in the history of insulated wires and cables.

Kerite is a seasoned security.



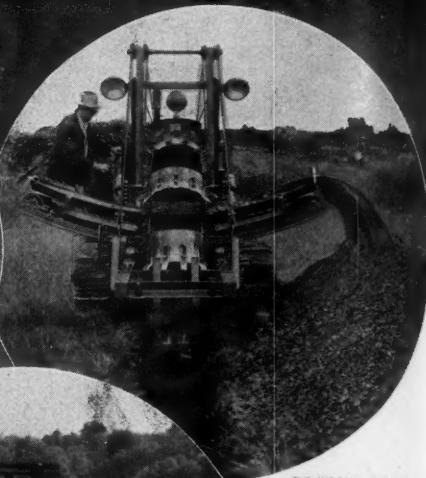
THE KERITE INSULATED WIRE & CABLE COMPANY, INC.

NEW YORK CHICAGO SAN FRANCISCO

Dig at EXTRA Profits with "CLEVELANDS"



CLEVELAND
Model 95



CLEVELAND
Model 110



CLEVELAND
Model 140

And—
the REASON

Every foot of trench machine dug means money saved. And "Clevelands" speed up practically every operation incidental to mechanical trenching.

Compact, fast, flexible, and with all dead-weight eliminated, yet powerful and rugged enough for the toughest task, in any soil or on any terrain "Clevelands" fit into more jobs assuring most "machine-trench" at least cost. Prove their value on your own work. Write today for details.

A big time-saving "Cleveland" feature—Truck speed transportation on special trailers.



**THE CLEVELAND
TRENCHER COMPANY**

"Pioneer of the Small Trencher"

20100 St. Clair Avenue
Cleveland, Ohio



RIGHT IN YOUR OWN OFFICE . . .

A telephone call, letter or wire will bring an Egry Business Form Specialist to your office to show you how your own form writing can be simplified, made more efficient, to give you all the facts of every transaction quickly, easily, accurately. They have helped thousands with their business systems and forms problems, and can help you—without one penny of cost! Your name on a post card will bring this factory trained specialist without delay. What's your name?

READ WHAT EGRY USERS SAY

. . . saves one-third the billing time.

*Egry User . . . Los Angeles.

. . . enabled us to consolidate three operations, saving 50% in time. *Egry User . . . Georgia.

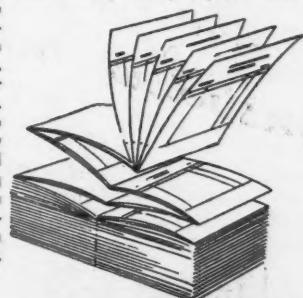
. . . indispensable to us in simplifying our bookkeeping system.

*Egry User . . . Ohio.

*Name on request.

Egry Continuous Business Forms are designed to your individual requirements, to record business transactions quickly, accurately, economically. Available in all sizes with as many copies, colors

of paper and ink as are needed; with or without interleaved one-time carbons; in offset or letterpress printing. Use Egry forms and enjoy their many profitable advantages. Egry specialists are ready to demonstrate Egry Business Systems and Egry Prestige-Building Forms in your own office at your convenience. Literature on request. Address Dept. F 119.



The EGRY REGISTER Company
Dayton, Ohio
SALES AGENCIES IN ALL PRINCIPAL CITIES

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

Elliott makes fine condensers!



*Here is
a notable
installation-*

— an 18,200-sq. ft. unit of two pass, divided water box design. The 1-in. tubes of Admiralty metal are rolled at both ends. The condenser inlet is welded to the turbine exhaust nozzle, eliminating the usual flanged joint. This fine Elliott unit serves a 20,000-kw. turbine at Mad River Station of the Ohio Edison Co., Springfield, Ohio.

In this station, ten Elliott motors drive various pumps, fans, pulverizers, with usual Elliott dependability.



ELLIOTT builds:

ELLIOTT COMPANY

Heat Transfer Dept., JEANNETTE, PA.

District Offices in Principal Cities

C-372

TURBINE-GENERATORS • MECHANICAL DRIVE TURBINES • ENGINES • ENGINE-GENERATORS • CONDENSERS
MOTORS • GENERATORS • MOTOR-GENERATORS • DEAERATORS • FEED-WATER HEATERS • DEAERATING HEATERS
CENTRIFUGAL BLOWERS • DESUPERHEATERS • FILTERS • VACUUM COOLING EQUIPMENT • STEAM JET EJECTORS
ELECTRIC HEATERS • TUBE CLEANERS • SEPARATORS • STRAINERS • GREASE EXTRACTORS • NON-RETURN VALVES

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)



Utilities Almanack

N O V E M B E R

9	T ^h	¶ American Society of Civil Engineers, Arizona Section, will hold fall meeting, Phoenix, Ariz., Nov. 25, 1939.
10	F	¶ National Institute of Municipal Law Officers will convene, Washington, D. C., Nov. 27-29, 1939.
11	S ^a	¶ National Industrial Council will convene, New York, N. Y., Dec. 4, 5, 1939.
12	S	¶ Edison Electric Institute, Prime Movers Committee, will hold meeting, Philadelphia, Pa., Dec. 4, 5, 1939.
13	M	¶ Mid-west Gas School and Conference opens, Iowa State College, Amer, Iowa, 1939. ¶ Third National Accounting Conference (E B I) convenes, Chicago, Ill., 1939.
14	T ^u	¶ National Reclamation Association starts convention, Denver, Colo., 1939.
15	W	¶ Southeastern Planning Conference will hold session, Hollywood, Fla., Dec. 4-6, 1939.
16	T ^h	¶ Alabama Independent Telephone Asso. starts session, Montgomery, Ala., 1939. ¶ National Municipal League opens meeting, Indianapolis, Ind., 1939.
17	F	¶ American Petroleum Institute concludes 5-day session, Chicago, Ill., 1939.
18	S ^a	¶ American Society of Mechanical Engineers will hold convention, Philadelphia, Pa., Dec. 4-9, 1939.
19	S	¶ National Association of Housing Officials will convene, New Orleans, La., Dec. 6-8, 1939.
20	M	¶ Oklahoma Municipal League convenes for session, Oklahoma City, Okla., 1939.
21	T ^u	¶ The Southern Gas Association will hold annual convention, Hot Springs, Ark., Feb. 12-14, 1939.
22	W	¶ Tax Policy League will hold convention, Philadelphia, Pa., Dec. 27-29, 1939.



From a mural by Francis Scott Bradford

Courtesy, New York World's Fair 1939, Inc.

Power in the Service of Man

This mural on the Consumers Building at the New York World's Fair 1939 depicts man controlling nature and turning its power to useful productivity.

Public Utilities

FORTNIGHTLY

VOL. XXIV; No. 10



NOVEMBER 9, 1939

No Formula for Choosing Good Corporation Directors

Any sophomore, says the author, can find in his college library books which explain in minute detail when a corporation should issue common and when it should put out preferred stock, or what it should do in any one of a hundred other corporate contingencies. But there is not one word to tell him, or anybody else, who should be elected to the board of directors.

By ALBERT W. ATWOOD

IN any business which is conducted on a large scale, as so much of the utility business must necessarily be, few things are as important, both from the viewpoint of internal management and from that of outside public relations, as the composition of the board of directors. Yet there is probably no phase of practical economics and corporate policy regarding which general knowledge and "literature" is so scanty. There are well in excess of 100,000 corporate directors in this

country, but singularly little is known concerning the best methods of choosing them.

Any sophomore can find in his college library a score of books which explain in minute detail when a corporation should issue common and when it should put out preferred stock, or what it should do in any one of a hundred other corporate contingencies. But there is not a word to tell him, or anybody else, who should be elected to the board of directors.

PUBLIC UTILITIES FORTNIGHTLY

It is true that the incorporation laws of the states, which give birth to our corporations, have clauses respecting the qualifications of directors, but they are merely nominal. Usually there can be as few as three, and generally there is no maximum; a few corporations have as many as 80 or 100 directors. Despite enormous powers which directors possess and so often exercise, state legal qualifications are few and wholly unimportant. Directors do not even have to be residents, in all cases. Most states require that they should be stockholders, but one share meets the legal requirement, and even this onerous provision is not found in every statute. Nowhere is a director required to be a substantial stockholder.

Of course, the officers and directors and some of the stockholders of any given company know why the directors of that particular corporation were selected, and they may be familiar with the practice in a few other cases. But there are no general principles or rules laid down which are available to all, such as is the case with so many other aspects of corporate conduct and policy.

Let me hasten to add that we have, and have had for years, plenty of light of a different kind on the subject. That is, corporation directors, as a group, have come in for no end of attention of an unfavorable nature. They have been endlessly criticized and attacked, justly and unjustly; they have been one of the most shining targets in the country for reforming zeal and political agitation, and no one will deny that the utility industry has had its full share of this particular kind of abuse.

But we can all learn from criticism, even when it is unfair and full of political animus. Certainly there is no way to get at the positive or constructive side of our subject; namely, how to choose good directors, without examining the main points of the opposition. It is impossible in the scope of an ordinary article to cover the whole ground, or even to refer to all the restrictive legislative measures upon interlocking directorates or the extent to which legal restrictions have been placed upon bankers as corporate directors.

To save time it may be well to bypass the earlier material on the subject and come directly to the comparatively recent so-called Walker report, made by one member of the Federal Communications Commission, on the American Telephone and Telegraph Company. In this report it is claimed that the president of the corporation really selects the directors in consultation with the executive committee and the existing directors.

This is significant, the author declares, because legally the directors have the power to select the president, "rather than the reverse." At any rate, the author goes on to say, the directors are not chosen by the stockholders, but by the president in consultation with existing directors.

Now, of course, this is no secret, speaking generally, as regards practically all large corporations which are owned by many thousands of stockholders. Commissioner Walker gives us no startling or sensational disclosure, and his report is quoted here, not because it has inherent importance, but merely to point up the tale. We need

NO FORMULA FOR CHOOSING GOOD CORPORATION DIRECTORS

no costly, elaborate government investigation to prove that thousands of widely separated stockholders, most of whom own only a few shares, and who are unknown to one another, cannot really choose directors. Whatever the legal fiction may be, directors must be chosen by the management, in consultation with the more active of the existing directors, or occasionally with representatives of very large blocks of stock.

OCCASIONALLY there are exceptions, when there is a contest for control or when stockholders have been aroused for some particular reason, such as by a striking act of malfeasance; but, generally speaking, the practice described in the Walker report is common. It is known to every college student who takes a course in corporation finance; for that matter, it is inherent in the very nature of the modern corporation.

In the utility industry, with its peculiarly important problem of preserving excellent public relations, as well as keeping the stockholder satisfied with his investment, there have been conflicting trends. Some of the larger organizations, for example, have gone after nationally known figures for their directorships, the idea being to lend a tone of stability, prestige, and

general public confidence to the enterprise.

Other utility concerns have adopted the practice of getting substantial local citizens to head their boards. Some years ago, a large holding company was required, under pressure of the state public service commission, to secure a "home rule" board of such local citizens for one of its local gas and electric subsidiaries in order to quiet criticism directed at "Wall Street control."

But this façade type of directorate, whether of the national or home-grown variety, is often more decorative than hard working in the practical sense. This brings us back to the old question of whether directors should be "inside" men, qualified by actual experience and intimate knowledge of the business to pass upon policy details, or "outside" men who will act as watchmen against managerial abuse and, if necessary, as a brake upon high-handed conduct of the "inside clique."

But how can the outsider thus function as an effective check if he is an innocent figurehead? And what is to prevent the management, once in the saddle, from controlling appointment of figureheads and thus carrying on a self-perpetuating dynasty of managerial control?



G"In most countries outside the United States, including Great Britain, it is much more common to pay directors salaries rather than fees. In some cases the salaries are relatively substantial and the 'outside' directors are expected to do much heavier work than here. It is a more dignified system than that employed in this country, and is probably somewhat more efficient, but on this point we have no conclusive evidence."

PUBLIC UTILITIES FORTNIGHTLY

INEVITABLY the great numbers of small and moderate shareholders have no direct way of making their influence felt, and in consequence the control and management often become self-perpetuating; as in the Catholic Church the Pope selects the Cardinals and the Cardinals select the Pope. We have a vast amount of corporate ownership, in the aggregate, without authority, and we have tremendous authority, without ownership.

We have been told all this a thousand times; it is self-evident. The real question is what to do about it. Let us see what remedies some of the critics offer. For example, the latest and most detailed discussion of the corporate director problem was contained in an address made on January 9, 1939, before the Fort Worth Clearing House Association by William O. Douglas, at that time chairman of the Securities and Exchange Commission, and now an associate justice of the United States Supreme Court.

At the beginning of his address Chairman Douglas spoke of the need for making boards of directors "more actively interested in their duties, more familiar with their companies, and more responsive to the interest of the stockholders whom they theoretically represent." This is certainly a worthy ideal.

He then referred to numerous examples of directors who do not direct and said that "only a few weeks ago a major scandal in a famous and highly respected New England concern showed that for years there had been a real skeleton in its corporate closet of whose existence even the board of directors was apparently not aware." It is often impossible, he added, for

directors to exercise the functions of counsel, guidance, and restraint.

CHAIRMAN Douglas went on to say that much of the difficulty comes from having so many inactive directors on the larger boards, "business colonels of the honorary type—honorary colonels who are ornamental in parade but fairly useless in battle; men whose fathers and uncles perhaps were generals but who themselves are qualified to command only by virtue of the uniform they wear."

Mr. Douglas next poured out his wrath upon the director who is nothing but a "yes" man for the person, usually the president, who put him on the board. He also denounced the practice of drowning, as it were, the often poorly informed "outside" directors by having too many officers on the board, referring to one large corporation which has all of its fifteen vice presidents as board members. Said he:

Thus, boards are made up of two kinds of directors: the "outside" directors who theoretically guide and control the management, and the "inside" directors who are the management itself. Because the "outside" directors spend so little time with the company and because their knowledge of its affairs is so superficial, they tend to take the management's word for everything that comes up, if the management is strong.

In addition, there is frequently on the board a "strong man" or a not-so-strong man representing a great bank, important company, or single security holder (perhaps an insurance company). He may or may not be an officer of the company. But because of the powerful interest for which he speaks, he can and does dominate his fellow directors, who, for the most part, have little or no stake in the enterprise and may derive little benefit from their positions.

So long as a man is a director of a company merely as an avocation—devoting no substantial part of his time to its affairs and deriving no income from it—we can hardly expect that he will be very wise or aggressive in opposing the program of those who seem to speak with knowledge. . . . This tendency to follow a leader violates

NO FORMULA FOR CHOOSING GOOD CORPORATION DIRECTORS

Compensation for Directors

DIRECTORS are not entitled legally to any compensation unless specific provision is made for it. Usually in the larger corporations the by-laws provide that a specific fee shall be paid to those who attend meetings. In small corporations in which the stock is closely held and in which directors are officers, the directors usually serve without compensation as such. Nor are the officer-directors of large corporations usually paid fees."



the traditional idea of what a board of directors should be.... The ordinary citizen thinks of a board of directors as distinct from and superior to the management. He thinks of directors as men whose advice the management will seek and who will exercise independent judgment on corporate problems. But this kind of director is too often nothing more than a myth.

What we frequently have is a large majority of directors who are dominated by a few management men or men representing special interests. These directors have abdicated. It is not enough to describe them as directors who do not direct. Too often they do not even influence. They have become little more than ratifiers. They ratify decisions they have not reached, based on arguments and evidence they cannot appraise. What was designed as a position of great responsibility is in danger of degenerating into a position of mere routine.

THIS then is the rather searching indictment which the chairman of the SEC, only a few months before he became a Supreme Court Justice, saw fit to hurl against corporate directors as a group. There is no doubt that formerly too many men held too many directorates; that many of the positions were only honorary; that large corporations procured well-known men for advertising purposes only; and that too many men took such positions more through vanity than because of any desire to really contribute something to the company.

But this is a subject where generalizations are dangerous. Chairman Douglas himself said in his speech that "honest and capable directors and managements constitute an overwhelming majority." Nor is there any doubt that the depression years have brought a quickening sense of responsibility on the part of directors—less willingness to accept such positions than formerly and more sacrifice of time and effort when they are accepted. What is the remedy which Chairman Douglas has to offer for such evils?

He quotes with approval his predecessor, Joseph P. Kennedy, now Ambassador to Great Britain, as saying that "one obvious reason is the fact that the honorarium which directors receive for attending meetings is clearly out of proportion to the heavy responsibilities."

"When the corporations so often attempt to get something for nothing," says Mr. Douglas, "it is no wonder that the directors are sometimes tempted to collect invisible rewards, to make use of their inside information, their market tips, their banking connections, and otherwise to serve themselves rather than the stockholders."

PUBLIC UTILITIES FORTNIGHTLY

CHAIRMAN Douglas' remedy is the paid, or salaried, or so-called professional director. He said:

The paid director would have no business interests other than serving on the boards of a few corporations. He would acquire a thorough knowledge of these corporations, and he would sit as a representative of the public interest. . . . The paid director would revive and strengthen the tradition of trusteeship. His job would be to return to the stockholder the protection which today's stockholder has too frequently lost.

There would be no lack of capable, mature, experienced men to enter the new profession of full-time director. There are any number of men whose successful business or banking experience has qualified them to act in an advisory capacity. It is one of the major deficiencies of our business system that we throw away so many matured intellects, so much wise counsel. In the paid directorship we would open up a new profession, which would tap a tremendous reservoir of experience and wisdom, much of which has no outlet today.

I have quoted from Justice Douglas at length not only because his analysis is keen, but because his suggested remedy is stated with such enthusiasm. But is the main difficulty merely a lack of adequate remuneration? Unfortunately, the problem is not quite so simple as Mr. Justice Douglas so spiritedly makes out. Compensation is only one factor in trusteeship. Thousands of men serve faithfully on the boards of colleges, hospitals, libraries, and school systems without any compensation. People do not perform their duty merely because they are paid to do it.

ON the other hand, it might be well for more corporations in this country to experiment with the salaried or professional director. We have very few large corporations which already pay "outside" directors a salary of several thousand dollars a year in lieu of customary fees. But the prevailing system is the fee system, with fees

ranging from a very few dollars up to a hundred dollars a meeting.

Directors are not entitled legally to any compensation unless specific provision is made for it. Usually in the larger corporations the by-laws provide that a specific fee shall be paid to those who attend meetings. In small corporations in which the stock is closely held and in which directors are officers, the directors usually serve without compensation as such. Nor are the officer-directors of large corporations usually paid fees.

In most countries outside the United States, including Great Britain, it is much more common to pay directors salaries rather than fees. In some cases the salaries are relatively substantial and the "outside" directors are expected to do much heavier work than here. It is a more dignified system than that employed in this country, and is probably somewhat more efficient, but on this point we have no conclusive evidence.

In Great Britain the professional director is often a man of high capacity and character, quite frequently with a title. On the other hand, there are distinct abuses in the system. Some of the professional directors have a sort of right to their jobs; that is, they actually sell the right, much like a medical practice.

CURIOUSLY enough, the rule-of-thumb valuation of a directorship and a medical practice is the same, five times the annual income. Americans who have had dealings with British directorates have sometimes considered this purchase of these positions little short of criminal, but it seems to be a well-established practice.

NO FORMULA FOR CHOOSING GOOD CORPORATION DIRECTORS

Harold Nicholson's novel, *Helen's Tower*, tells the story of one of the most famous cases of company corruption in England's history, in which a managing director (same as our president) exploited the good name of a titled professional director, hastening the death of the latter and bringing upon himself ruin, conviction by a jury, and suicide. This case led to changes in British laws concerning the responsibilities of directors, but even today it is a commonplace that in British companies, along with many that are admirably managed by honorable men, there are instances where the professional directors do not observe the highest standards of professional conduct.

Thus we find that the "professional" or salaried director is not necessarily a cure-all. Perhaps the answer lies in insisting, by law, that all directors should be large, substantial stockholders. Certainly directors as a group have been condemned often enough because they own very little stock. It would seem to be natural that a man who holds a substantial ownership interest in a given business—other things being equal, as they seldom are—will make a better director than one whose stake is negligible.

BUT the literal fact is that in modern industry there is absolutely no rule concerning the ownership interest

which a director should have as a practical qualification for his post. The all-important qualities in a director are alertness, vigilance, independence, courage, and a keen sense of trusteeship. These may be present in the man who has a nominal holding of 3 shares or in the one who has 30,000 shares. Wealth does not necessarily make a person a good director, although in some cases it is evidence of the requisite qualifications.

A PAPER recently presented at the second annual convention of the Investment Counsel Association of America on "Stock Ownership by Managements of Leading U. S. Corporations,"¹ showed that directors owned from 3/100 of 1 per cent to 21.20 per cent of the stock in 59 leading corporations. But the figures showed no particular success correlation. In fact there are two very large companies at the bottom of the scale, where the directors own only 3/100 of 1 per cent of the stock, and both are very successful.

We must bear in mind that one of the very strange contradictions of current economic criticism lies in the simultaneous abuse heaped on great fortunes and on persons exercising industrial influence without a large financial stake. We are urged to break

¹ By Brevoort Stout, assistant vice president, Johnston & Lagerquist, Inc.



G"Not invariably, but commonly, bankers make excellent directors on industrial and utility boards. They, as well as other directors, study the detailed reports given them with expert and trained intelligence; they ask the management pertinent and searching questions; they cross-check the management in many useful ways."

PUBLIC UTILITIES FORTNIGHTLY

up fortunes because they make serfs of us all, and we are also asked to shudder at the divorce between ownership and control.

We are expected to make control through ownership impossible, and we are expected at the same time to make control without ownership impossible. Just where does this leave us? Certainly we can't go back to small-scale enterprise. Perhaps we are expected to turn everything over to the government to own and operate.

As a practical matter there is surely room for both kinds of directors—those who own a large amount of stock and those who do not. The director who owns a large amount of stock is analogous to the proprietor of a small company or firm, where there is identity of ownership and responsibility. The director who has only a nominal property interest has a status of trustee. Between the two extremes there is the whole scale in which the characteristics change imperceptibly as we go from one to the other.

As long as we have private enterprise, with small family companies, growing into publicly owned corporations, how can we get away from the owner - director? Conversely, with great corporations owned by hundreds of thousands of stockholders, the property interests of any one director are necessarily negligible.

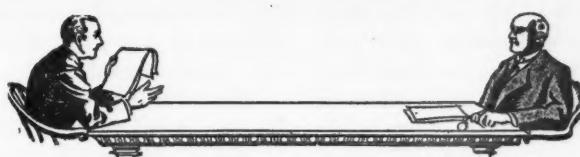
One very practical difficulty in insisting that all directors should be large stockholders is that the big holdings are often in trust estates, or perhaps in the hands of institutions, and that no representative who would be of value on the board is available. As a matter of fact, some of the best di-

rectors in our industrial history have been men with only a modest stake in the corporations which they directed.

Nor do we have any neat and all-sufficient formula as to whether the best directors are bankers, lawyers, wealthy capitalists, successful executives, industrialists in similar or other lines, or officers of the company itself. In recent years there has been a decided tendency to elect more officers to boards, and there is no doubt that several officers on a board are very helpful. But there is danger in going to extremes. If officers preponderate, they are merely reporting to themselves and approving their own actions.

In recent years we have had much legislation sharply restricting the number of directorates which bankers and financiers in general can hold. It was certainly high time that the former practice by which some of these men held as many as fifty important directorates was stopped. The free and easy manner in which a few prominent Wall Street financiers went on dozens of boards in the years before the depression was not only dangerous, it was ridiculous.

On the other hand, the sentiment which sprang up against bankers in the early years of the depression, fanned as it was by calculating political agitators, has itself gone to unwarranted extremes. Not invariably, but commonly, bankers make excellent directors on industrial and utility boards. They, as well as other directors, study the detailed reports given them with expert and trained intelligence; they ask the management pertinent and searching questions; they cross-check the management in many useful ways.



Large Stockholders As Directors

ONE very practical difficulty in insisting that all directors should be large stockholders is that the big holdings are often in trust estates, or perhaps in the hands of institutions, and that no representative who would be of value on the board is available. As a matter of fact, some of the best directors in our industrial history have been men with only a modest stake in the corporations which they directed."

In the last few years several important companies have begun to break away from the conventional pattern of banker - lawyer - capitalist - industrialist-officer directorate. For instance, the Consolidated Edison Company of New York has put on its board a woman whose qualification is not so much technical knowledge of the business or large stockholdings as it is her experience in civic, welfare, and women's club activities. President Carlisle said he believed that her election "could be construed as recognition of the growing importance of the woman's viewpoint in the public utility business," and he added that a considerable percentage of the company's employees are women.

We also see here and there the election of one or more manual workers in large corporations to the boards. Also there have been a few instances where the presidents of universities or newspaper men have gone on boards, utility and otherwise, "in

recognition of an enlarging responsibility on the part of American business to the American people," as the president of the Freeport Sulphur Co. stated when he put President Valentine of the University of Rochester on his board, or "to represent the viewpoint of the general public," as President Lewis H. Brown of the Johns-Manville Corp. said when Dr. Walter A. Jessup, president of the Carnegie Foundation for the Advancement of Teaching, went on his board.

ALL these tendencies may be said to indicate an effort upon the part of those who control our great corporations to recognize that economic factors are not the sole ones to be considered in the conduct of these companies. "The measure of corporate success goes beyond profits," says President Lewis H. Brown, "and now includes service to the community and nation as well."

But let us be realistic about it. The election here and there of a college

PUBLIC UTILITIES FORTNIGHTLY

president, a club woman, or a manual worker, is not going to bring about any corporate millennium. No system is proof against individual dishonesty or general failure. For that matter, the right kind of director is not to be obtained by merely offering high remuneration, although such a method may be of some help.

THE fact is that the American system of directorates, while subject to improvement, has not worked out so badly. Its shortcomings have been enormously exaggerated and its virtues taken for granted or completely glossed over.

Speaking broadly, directors have been selected much as top executives or "industrialists," so called, have been chosen, except for rather more general and less specialized qualifications. This fact leads us to ask, what are the real sources of influence in industry today, both as respects the executives or managements, and the directors? They are at once simpler and far more subtle than the critics of our corporate system will ever realize.

Men from every part of the country, of all religions, of every social class, make up the group. They have all kinds of educational and technical equipment; they range from insolvents to men of great fortunes; some are handshakers, others are indefatigable workers; a few are crooks and freebooters, others are the salt of the earth; they constitute a cross-section of the successful elements of the American population.

How have these men come to be industrial leaders and directors? Fundamentally because their qualifications have won recognition from those

among whom they work. No man can long survive the distrust and dislike of those he deals with. If in many cases the qualifications have been inadequate or antisocial, part of the responsibility lies with the community itself. Placing limits on wealth, eliminating holding companies, restricting directorates—these are merely changes in external forms. Far more difficult it is to change the community's outlook so that the accolade of public recognition will be awarded only to men of integrity and sense of social responsibility.

AFTER all, admitting many unfortunate exceptions, the exercise of industrial influence is, in the main, whether through managements or "outside" directors, a question first and foremost of personality. This fact, always obvious to men actually engaged in business, seems shrouded in mystery for many writers who chase the secret through labyrinths of interlocking directorates and holding company structures, utility and otherwise. They are so preoccupied by forms that they completely miss the substance.

Justice Douglas says that "honest and capable managements constitute an overwhelming majority." I do not believe that anyone could sit down with the huge volume known as the "Register of Directors," with its 122,000 names in front of him, without agreeing with that statement.

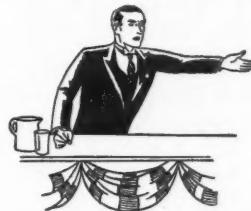
We must remember that in any activity in life it is difficult to find men of the character and ability that are needed. Only recently the newspapers were filled with the story of the disappearance and subsequent arrest of the president of a great state univer-

NO FORMULA FOR CHOOSING GOOD CORPORATION DIRECTORS

sity and a shortage of something like a million dollars. The duty of the corporate director is to act as a check upon management, even though he has every confidence in the management. The duty of the director is to look for trouble, even though he thinks the chances of finding trouble are very slight.

But it is hard for us humans to en-

joy checking those whom we like, respect, and trust, and it is hard for human nature to be always looking for trouble. So I say there is no formula for choosing directors; there is no system, no neat and all-sufficient answer. It is the same old story which we have had since the beginning of the world and always will have; namely, the difficulty of finding the right man.



Free Speech before a Free Assembly

An amusing and one of the most popular exhibits at the New York World's Fair (recently recessed) is the free long-distance telephone call offered visitors to the Communications building. A spectator is selected by chance every few minutes and allowed to call anyone he pleases anywhere within continental United States. The only string on the proposition is that the call is made from a glass cabinet mounted in front of an audience of two hundred and fifty people, each of whom is *listening in on the conversation*. The awkward stiffness that often results from such unexpected calls is what affords the fun to the spectators. Here is an actual sample conversation: Mr. Joseph X called friend Dr. C in Muncie, Ind. "New York is calling Dr. C," the operator announced to the crowd. Then when Dr. C responded she enlightened him: "Mr. X is calling you from our exhibit at the New York World's Fair. Other people are listening."

This news seemed to curb any enthusiasm Dr. C might have had for the call. "How are you, Doc?" asked X. "Fine, how are you, Joe?" countered Doc. "Great! I hit the lucky number here, so I'm allowed to talk free," said Joe. "That's fine," said Doc weakly, then he added with sudden inspiration, "Don't you want to say hello to Sarah? She's right here." Without waiting for a reply the nervous doctor turned the conversation over to Sarah with seeming relief. "How are you, Joe?" asked Sarah with more spirit. "Fine," said Joe. "Are you surprised to hear from me?" Sarah admitted she was surprised. Then both ends exchanged comments about the state of the weather in New York and Indiana, after which Sarah suggested that Joe say hello to "little Teddy." Little Teddy turned out to be somewhat doubtful about the authenticity of "Uncle Joe" but after that was established he asked, "How are you feeling, Uncle Joe?" Whereupon Uncle Joe further established, if that were possible, the fact that he was feeling fine. The "red light" blinked at this point ending the ordeal for Uncle Joe, who said a hurried good-bye to little Teddy and emerged from his glass prison with a face like a glowing beet, but smiling and proud as a triumphant sportsman should be. He had conquered the challenge of the telephone.



Will the TVA Pay Its Way?

The author is convinced that it will without modification of the general level of rates—survey of what he deems to be the essential facts relating to liquidation.

By MARTIN G. GLAESER

THE controversy over allocation of joint TVA costs naturally and logically carries over to the two subjects of "liquidation" of power costs and "yardstick" regulation where conclusions must, indeed, be corollaries of any conclusions which may be reached on the subject of allocation. This article will be devoted to a survey of the essential facts relating to liquidation.

From the very beginning of the TVA's existence as a power-producing and selling agency, the wisdom of Federal investments has been called into question. The position of Congress, however, has been that the expenditures for navigation and flood control are socially desirable if, by adding power production, a portion of the joint expenditures can be recouped from the sale of such power. This position was

written into § 14 of the act where the rule governing the Authority in the determination of wholesale rate levels is laid down:

It is hereby declared to be the policy of this act that, in order, as soon as practicable, to make the power projects self-supporting and self-liquidating, the surplus power shall be sold at rates which, in the opinion of the board, when applied to the normal capacity of the Authority's power facilities, will produce gross revenues in excess of the cost of production of said power . . .

Conforming to this legislative policy, the Authority promulgated certain rate schedules under which revenues are now being earned, either under the terms of standard wholesale contracts with municipalities and coöperatives or of special contracts with large industrial customers and with connecting utilities.

The congressional investigating committee addressed itself to this question of liquidation by attempting to answer the question: "What profit or loss may be expected in the opera-

Note.—This is the second of a series of articles by the author on TVA. For the first, see PUBLIC UTILITIES FORTNIGHTLY, August 31, 1939, p. 259.

WILL THE TVA PAY ITS WAY?

tion of the Authority's power program?"

Stating the matter in another way, the committee wanted to know: "... whether the taxpayers of the nation are contributing to costs which should be borne by the consumers of Authority power."

On this question also the issue between the majority and minority report is squarely joined. The majority report, accepting certain estimates of its own engineers, finds that "revenues would pay for all power costs and also would cover the annual expenses of navigation and flood control and return the total investment in these programs in about fifty years."

The minority report, on the other hand, insists that the "power program under present rates does not pay its way." They claim that electricity is furnished at less than cost and that the deficits are paid by the rest of the country.

How can such contradictory conclusion be derived from the same investigation? At bottom the reason is that the true answer to the question of liquidation lies in the lap of the future. Any answer attempted at the present time must necessarily be based upon estimates of future results. The cleavage as to policy in the personnel of the committee (Conservative Republicans on one side—Progressive Republicans and Democrats on the other) doomed the committee to such selection of estimates as would buttress the desired conclusion.

This is not the first liquidation estimate made for TVA. The writer participated in making an embryonic one when the level of TVA wholesale rates

was first determined in the summer of 1933. He had occasion to check another made by the Authority in the fall of 1933 when Wilson dam was still the only power plant in the system, but after a preliminary allocation had been attempted. Later, in 1936 and 1937, when he was responsible for the negotiation of the important wholesale contracts with the Aluminum Company of America, the Arkansas Power & Light Company, Victor Chemical Company, and Electro-Metallurgical Company, other and more detailed liquidation estimates were made. These covered all the dams in the TVA system provided for in the unified plan, for which preliminary figures were available.

ESTIMATES of probable revenues and costs were needed in order to reassure ourselves that the revenues which would be accruing under contracts then outstanding or in process of negotiation would, under reasonable assumptions as to utilization of energy, be sufficient to liquidate power costs and provide a reasonable margin to support the navigation and flood control functions. A tentative allocation based upon potential use of reservoir capacity had been worked out and the liquidation estimates were made with this as a foundation.

It may be observed, parenthetically, that the amounts of joint cost thus allocated to the different functions did not differ radically from those derived by the more refined methods which have since received official approval. Throughout 1936 and 1937, crucial years in the delineation of TVA's power policies, we were guided by these preliminary estimates.

PUBLIC UTILITIES FORTNIGHTLY

When, finally, the device of a committee on financial policies was hit upon as a means of overcoming internal frictions, I suggested, as chairman of this committee, that a liquidation study be made to accompany the allocation and to test out again the sufficiency of the earning capacity of TVA under existing rates. This process must necessarily be continued until the TVA construction program is completed and the normal earning capacity of the TVA as a power utility has been achieved. This last-named study, modified to suit a 3-plant, 10-plant, and 11-plant system, was made a part of the record of the investigating committee and was testified to by my successor, J. A. Krug.

THE engineers' report of the investigating committee was built up on the basis of figures derived from this study. After making certain modifications to be detailed below, the committee's engineers underscored the affirmative conclusion which had been reached by the writer and by others who have examined the facts as to the sufficiency of TVA's power revenues.

We quote from the committee's report:

The committee accepts the conclusions of its engineering staff as representing as nearly accurate a forecast of the Authority's

operating results as present information renders possible. The estimates are believed to be conservative, and the evidence and the engineers' report indicate, under such circumstances as can now be foreseen, that the Authority's power program will not only be self-supporting, but, if the present wholesale power rates are maintained, will also make a material contribution to the costs of navigation and flood control, thus relieving some of the burden which otherwise would be carried by the general taxpayer.

The minority relied upon the liquidation estimates of Dean Moreland of the Massachusetts Institute of Technology and former Chairman A. E. Morgan when it concluded that the rates were not adequate. The former witness was so rash as to commit himself to an increase in rate level of 43 per cent. Both witnesses calculated annual deficits, respectively, for an 11-dam and 7-dam system of \$10,352,000 and \$3,156,852. In his rebuttal estimate for an 11-dam system Krug showed an annual surplus of \$4,624,775. In face of this bewildering array of conflicting figures, of claim and counterclaim, what can be done to help the layman achieve a conclusion on which, as a nonpartisan, he may rest his judgment?

IN the first place, as Dr. Paul J. Raver said in his report on TVA rates, he should "give these rates an opportunity to speak for themselves." This means that he should be willing to withhold



Q"RESOLVING any doubt due to the unwillingness of private enterprise to vacate the field in favor of TVA, we reach the conclusion that power operations of TVA will, at present wholesale rate levels, more than take care of all power costs on any reasonable basis of allocation. . . . we can say that profit and not loss may be expected from the power program and that the taxpayer at present wholesale rate levels will not be subsidizing the ratepayers."

WILL THE TVA PAY ITS WAY?

judgment until the actual results and not hypothetical conclusions can be used to inform his judgment. It is reasonable to ask the informed layman to defer reaching conclusions because it appears that the major differences in the figures spring from the use of different interest and depreciation rates, where the particular bias of the estimator counts for so much.

In the second place, let there be a re-examination, as the minority suggest, by independent engineers (and, we would add, economists) of the question of allocations. Perhaps a reëxploration of the subject would show that a higher proportion of the joint cost should go to power.

The minority also attack the estimates of revenue. They evidently had no faith in the competence of their own engineers, for they suggest that the estimate of revenues is too high and should be reëxamined by competent engineers. They attack also the reliability of estimates as to future taxes. Since TVA and distributors' taxes are at present the subject of considerable argument and negotiation, with the prospect of some increase in the statutory tax burden of both agencies, the item of taxation may be subject to adjustment upwards.

The present writer is convinced, however, that no matter what reasonable changes in costs the future may bring, the margins presently existing will be found large enough to absorb these upward changes in cost without modification in the general level of rates.

COMING now to the evidence presented, we should note first of all that no useful purpose is served in at-

tacking the estimates of liquidation prepared by TVA Comptroller Kohler. His estimates, prepared from a strictly accounting rather than an economic point of view, make no allowance for interest during construction or workmen's compensation, which are costs actually incurred but not charged to TVA under present statutory arrangements. Similarly, the comptroller's accounts make no provision for payment of interest on the investment. Perhaps this is a defect which should be remedied in any revision of the financial set-up under which TVA should in future live and have its corporate being. But it is idle for the minority to inveigh against the comptroller's finding that from 1934 to 1938, TVA power operations show a "net expense" or loss of only \$748,665. It is necessary to distinguish liquidation as shown by the accounts from true economic liquidation in which all costs actually incurred must be considered. The resentment of the minority at an accounting showing which masquerades a loss as "net expense" is understandable.

Little need be said regarding Dean Moreland's estimate for the 11-dam system. Although included in the Authority's unified plan, the addition of Fontana dam to the 10-plant system renders the estimates so conjectural as to destroy the probity of the figures. Mr. Krug's rebuttal estimate would be subject to the same infirmity. The Moreland estimate is further vitiated by his unreasonable procedure in determining the allocation to power, as explained in the preceding article.¹

¹ "Those Joint TVA Costs," PUBLIC UTILITIES FORTNIGHTLY, August 31, 1939, p. 259.



Wisdom of Federal Investments

"FROM the very beginning of the TVA's existence as a power-producing and selling agency, the wisdom of Federal investments has been called into question. The position of Congress, however, has been that the expenditures for navigation and flood control are socially desirable if, by adding power production, a portion of the joint expenditures can be recouped from the sale of such power."

ALTHOUGH there is no substantial difference between Dean Moreland and the other estimators in their methods of estimating revenues, significant differences are noted in estimating expenses. Confining ourselves only to the two items which largely account for the difference—interest and depreciation or amortization—it should be noted that Moreland calculated interest at $3\frac{1}{2}$ per cent, while the committee's engineers used 3.25 per cent, and the Authority 3 per cent. The actual cost of long-term money to the government from 1933 to 1937 was 2.9478 per cent. With the large amounts of investment involved, a difference of $\frac{1}{2}$ per cent means a difference in annual cost of about \$700,000. Using the rule that interest be charged at the borrowing rate, Moreland exhibits his bias by using $3\frac{1}{2}$ per cent, while the committee's engineers follow the conservative practices of regulatory commissions by making an allowance

"for the possibility of a rise in the rate during the remaining period of construction." Who can deny that they may be right in their forecast?

But it is in the calculated annual cost for depreciation or amortization that the cloven hoof of partisanship appears most prominently. Depreciation, what crimes have not been committed in thy name!

The committee reports that Dean Moreland used a 30-year life for equipment and a 50-year life for the dams, not deducting land from the depreciation base for the dams. These lives yield a rate of 1.5 per cent using a sinking-fund formula, and of 2.78 per cent using a "straight-line" formula, which the committee at once compares with a rate respectively of 0.76 per cent for the Ontario hydroelectric system, and of 1.22 per cent for Tennessee Electric Power Company, and 1.425 per cent for Alabama Power Company.

WILL THE TVA PAY ITS WAY?

THE committee's engineers, restricting their estimates to a 10-plant system, used a hybrid method of estimating amortization and depreciation.

The report makes the following summary:

The engineers calculated amortization on a 50-year basis, at 3.25 per cent interest, which in their judgment adequately provides for obsolescence, by returning the total investment in this period. The resulting annual charge is 0.825 per cent per year. In addition, depreciation on a sinking-fund basis of 0.95 per cent applied to the entire investment is allowed to take care of renewal and replacement of property with a life of less than fifty years. The total for retirement is therefore 1.775 per cent.

In contrast with the above, the Authority's estimate of depreciation was based upon forecasts of the life of each item of depreciable property. For instance, all machinery and equipment was assumed to have an average life of thirty-five years, dams and mass concrete structures of eighty-five years, superstructures and buildings of seventy-five years. Transmission facilities were divided into six life classifications ranging from fifteen to fifty years.

The depreciation rates corresponding to these lives were computed on a sinking-fund basis, using interest rates to match the assumptions as to interest requirements for the total investment.

Since a substantial portion of the total investment is for nondepreciable property (\$116,052,427 out of \$494,092,864) which may be said to have an indefinite life, the Authority's calculations assumed that such property would be amortized over a period of eighty-five years, corresponding to the longest life selected for any item of depreciable property.

THE committee rejected Dean Moreland's figures as erroneous but likewise did not accept the Authority's figures "as accurate in detail." Instead it "prefers to report those of its own engineering staff as a basis for drawing conclusions as to the costs of the power program." It calls attention to the fact that using the engineer's estimates implies that when the investment is paid off in fifty years the physical plant will have been maintained, and the interest charges will be relieved.

Further basis for rejecting the Authority's estimates, no doubt, resides in the fact that it had used only 5 per cent of the gross revenues authorized by the act as a component for taxes. Here the engineers used 12½ per cent applied to the wholesale revenue, a rate which had been used as an allowance for taxes in fixing the wholesale schedule back in 1933. Another adjustment was deemed necessary because, with a 60 per cent load factor, an indicated surplus of \$2,822,000 above full power costs might be increased by \$1,000,000 if special contracts with industries, etc., were ultimately canceled. Similarly, by the use of exchange power agreements and the use of supplementary steam generation, the engineers foresaw the possibility of regrading the available secondary, dump, and surplus hydroelectric energy to a higher value classification. This might add from \$2,500,000 to \$3,203,000 to the profit margin above allocated power costs.

SINCE a 10-dam system operating at 60 per cent load factor is the most likely goal at which the TVA's present construction program is aiming, we

PUBLIC UTILITIES FORTNIGHTLY

will present relevant *average annual* liquidation estimates on two bases, A and B, where A assumes that special contracts are in force, while B assumes that these have been canceled and the same power sold through preferred customer channels. See Table I, below.

On basis A, and assuming exclusively hydro operations, the Authority estimated power revenues of \$20,251,000, total expenses of \$17,312,333, and surplus available to liquidate costs chargeable to navigation and flood control of \$2,938,667.

It is interesting to compare the Authority's estimate of power investment with that used by the committee's engineers. See Table II, p. 613.

In spite of the adjustments made by the engineers in their estimates as contrasted with the Authority's estimates, the two computations are not far apart as to final results. Where the engineers show an average annual surplus above power costs, after full development has been attained, of \$2,822,000, the Authority's estimates show \$2,938,667. With allowances for increased revenues accruing from the conversion of special contract revenues into wholesale power revenues under Schedule A-1, and with the regrading

of secondary and other power by interconnection or supplementary steam into higher valued power, or by both these processes, the engineers predict a surplus of almost \$7,000,000 per annum, if the present level of rates be maintained.

THE foregoing estimates are based upon the attainment of a reasonable utilization of power facilities. As a matter of fact, the Authority has in the past suffered losses due to unutilized facilities which the committee estimates will aggregate \$13,000,000 with interest accruals at 3½ per cent by June 30, 1939. This period of loss, the committee believes, came to an end in 1938, but endured for five years because of hampering litigation. The writer would go further by saying that the Authority also had to overcome local opposition of power companies and other interests, which would have delayed the sale of surplus power at reasonable rates even if no injunctions, based upon constitutional questions, had intervened. However, the more aggressive marketing policy inaugurated in 1936 and continued through 1937 and 1938, with the consummation of the purchasing program to be



TABLE I
LIQUIDATION ESTIMATES

	<i>Basis A</i>	<i>Basis B</i>
Special contract	\$ 4,807,000	\$.....
Primary power A-1 schedule	13,478,000	17,595,000
Secondary at 2½ mills	3,205,000	5,300,000
Dump at 1 mill	1,435,000	1,435,000
Total Revenues	\$22,925,000	\$24,330,000
Total Expenses	20,103,000	20,547,000
Surplus hydro alone	\$ 2,822,000	\$ 3,783,000
Surplus with interconnection		6,283,000
Surplus with supplementary steam		6,986,000

WILL THE TVA PAY ITS WAY?

TABLE II
POWER INVESTMENT ESTIMATES

	<i>Engineers</i>	<i>Authority</i>
Power investment	\$195,799,544	\$194,950,366
Workmen's compensation	1,100,393	1,385,681
Interest during construction	7,088,398	10,483,804
Total	\$203,988,335	\$206,819,851
Less accrued depreciation, Wilson dam ..	4,778,596	4,442,086**
Total generation	\$199,210,000*	\$202,377,765
Transmission	75,500,000	84,283,000
General property	4,000,000	2,000,000
Working capital	3,000,000	
Total power investment	\$281,710,000	\$288,660,765

The details of the allotments for operating expenses compare as follows:

	<i>Engineers</i>	<i>Authority</i>
	<i>Basis B</i>	<i>Basis A</i>
Interest (engineers 3.25%; Authority 3.0%) ..	\$ 9,155,575	\$ 8,849,876
Amortization (engineers .825%) ..	2,324,108	120,231
Depreciation (engineers .95%) ..	2,653,000	3,701,676
Operation and maintenance ..	3,130,000	3,628,000
Taxes and insurance (engineers 13.5%) ..	3,284,550	1,012,550
	\$20,547,233	\$17,312,333

* In round numbers.

**The engineers failed to deduct \$332,819 for accrued depreciation on locks at Wilson dam in making up their power estimate.



dealt with in the final article in this series, will, it is confidently predicted, make the TVA into a going concern.

Let us summarize to see where the TVA stands. If we assume that the TVA will not be expanded beyond the 10-plant system, the total investment in dams will be \$407,809,864, after deducting depreciation accrued at Wilson dam prior to 1933. To this must be added the cost of substation and transmission facilities and other miscellaneous electric plants required to interconnect the ten projects and to transmit and sell the power. This cost is estimated at \$86,283,000, all of which is assignable to power. Adding the generating facilities (which includes the power share of joint costs), to-

gether with allowances for interest during construction at 3 per cent and workmen's compensation at 0.5 per cent, shows a final power investment of \$288,660,765.²

FACILITIES devoted exclusively to navigation, like locks, will cost \$44,880,800. Adding the navigation share of joint cost and including interest during construction and workmen's compensation will mean an investment of \$122,170,118. The investment in flood control facilities, including both direct and joint costs with overheads, will aggregate \$104,602,775. This will

² We chose the Authority's estimate because it is larger. This is true despite the fact that the Authority made no allowance for a problematical item of working capital.

PUBLIC UTILITIES FORTNIGHTLY

represent a total investment for all purposes of \$515,433,658, although the inclusion of interest during construction of almost \$11,000,000 for flood control and navigation facilities may be questioned.

In spite of the calculations which they point to with such assurance, the minority of the committee seem not to be quite sure of their case. They stress the difficulties of selling power in competition and claim that both the Authority and their own engineers have taken entirely too much for granted in their revenue estimates. "Merely because there is a market for electric power within transmission distance of the TVA system is no assurance that TVA will serve that market to the exclusion of private companies

who are now serving it." This raises the question of another imponderable in the future relations between TVA and the private utility industry to which we will advert in a succeeding article.

Resolving any doubt due to the unwillingness of private enterprise to vacate the field in favor of TVA, we reach the conclusion that power operations of TVA will, at present wholesale rate levels, more than take care of all power costs on any reasonable basis of allocation. In answer to the questions posited by the committee, we can say that profit and not loss may be expected from the power program and that the taxpayers at present wholesale rate levels will not be subsidizing the ratepayers.



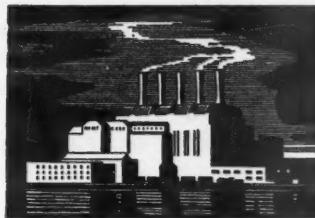
Laws of Adaptation

"We must accept the principle that the common agent of the popular will—the people's government—will be forced to undertake as public functions what the common need requires. The state of the arts, the distribution of natural resources, the organization of our economic life, work opportunities, and the accepted standards of living, all will play a part in the determination of what this common need is.

"We must make a conscious and continuous attempt to adapt the structure of our government to the changing environment in which political institutions work. No governmental forms are sacred. They are subject to the same laws of adaptation as are other structures, organic or institutional. If simple checks and balances fail, let us discover accommodations which may allow them to succeed.

"We must recognize that, in spite of theoretical divisions of the field of governmental power, many of the problems facing our people have become national in their scope, and they must be met in some large part by a national attack. No amount of rationalizing or reasoning from precedent will change this fact."

—CLARENCE A. DYKSTRA,
President, University of Wisconsin.



Electric Power Utilities Should Speak Up

Having a just cause, they can win public favor, in the opinion of the author, by conscientious attention to company personnel and by making their communities conscious of their benefits of regulated private operation and ownership.

By WILLIAM L. MUDGE, JR.

DURING the last decade, the electric power and light industry has tasted the flavor of prosperity and adversity. Its rapid growth through adolescence has been tempered by recent years of maturity. The industry has come of age. Why is it, then, that the New Deal has refused to trust this promising industry to rules of a regulated monopoly?

The financial manipulations of a few prominent promoters have come to grief. The losses suffered by the investors were exploited by ambitious politicians. The depression came, encouraging the industry's critics to a furious indictment. The public relations' program could not repel the tongue lashing. It was as effective in repulsing the political attack as a Hollywood-made fort could have resisted a bombardment by army guns.

The New Deal, flush with victory, pressed on. Many of the laws it passed were inspired by indignation and were presented to the public as a reform. Experience and force of circumstances have made them tolerable but burdensome. The legislation has been excused in the name of the common good despite its destruction of initiative and opportunity. The industry has been able to adjust itself through the years to the gradual evolution in business and social progress, but the avalanche of legislation has had the impact of a bomb.

As an industry now in its majority, have the electric power and light companies kept abreast of these rapid-fire changes? Can it justify its existence in the crosscurrents of confused political thought and action? Does it have a purpose to fulfil in our democracy?

PUBLIC UTILITIES FORTNIGHTLY

Does it have, if you will, a cause to struggle for? And, has its program of public contact been remodeled to fit current conditions?

The record of events reveals that the public is only active in expressing its opinion in bad times. In good times it is generally indifferent. Occasionally, individual corporations have been able to nullify a political campaign of opportunism by arousing the public to civic pride and self-sufficiency. Industries, on the whole, have rarely succeeded in such an achievement.

On the other hand, politico-economic crusades have arisen like hurricanes and have spent themselves after some damage. Within a short time we have seen the disintegration of many popular political movements. Time has shed light on their weaknesses, but has not terminated the chance of more unprincipled movements. Faced by a restive public, their technique can be applied more effectively when the public is again aroused to protest.

A SURVEY of opinions of "expert groups," reported a short time ago in the *Public Opinion Quarterly*, stated that life insurance executives, bankers, lawyers, and public relations' counselors foresee less change than do academic scholars, such as economists and sociologists. The life insurance executives, bankers, and lawyers, as well as the communists, were not only the most confident in their predictions, but, judging from the variety of predictions expressed, appear to have been more influenced in their views by their personal attitudes than other specialized groups. Those found to be most detached were economists and sociologists and, above all, the historians.

NOV. 9, 1939

Some interesting reactions on the power issue have occurred in recent years. "The Survey," by *Fortune*, discovered as far back as the spring of 1936 that the public judges the issue on a basis of local experience, although the New Deal has made it a national issue. Despite the ballyhoo for government operation, and despite those who irresistibly believe in either private or public ownership and operation, an influential factor affecting opinion has been the local experience with the electric company or municipal bureau. While the sample of opinion compiled by "The Survey" favored public ownership, near the end of 1936 a questionnaire was sent out by the *Industrial News Review* to the editors of country newspapers, resulting in strongly negative answers to municipal ownership and Federal development. Likewise, the results of municipal elections for electric plants have shown a steady trend away from municipal ownership and Federal development.

ONE might surmise from this result that the local electric company is doing an increasingly better job. Be that as it may, the fact remains that improved business activity over the last few years has soothed the temper of the local citizenry. On the other hand, the poll of the "expert groups," reported by *Public Opinion Quarterly*, showed that 70 per cent of those replying predicted that all electric power would be publicly owned within twenty years. Whether or not this prediction is a correct view, it, nevertheless, is a straw in the wind.

The industry is operating on a more efficient and economical basis than at any time in its history. Its average

ELECTRIC POWER UTILITIES SHOULD SPEAK UP

rate for service has reached a new low and the consumption per customer has reached a new high. The financial condition of both the holding and operating companies is an open book and the holding company can no longer be accused of milking its subsidiaries. The information about the companies that is issued to various governmental agencies is so voluminous that it is very doubtful whether those agencies can absorb the information intelligently.

It is fair to say that the unfavorable news about the industry has been repeated so often that it has become stale. Picayune critical press releases, occasionally issued by governmental agencies, appear to be duds in the governmental bombardment. Nevertheless, the politician still feels that the electric industry can be exploited to his own advantage.

THE New Deal appears to have believed that certain electric systems need purging and against them concerted governmental attention is being directed. The effect has been to divide the industry as to agreement on a public policy. Hence, no united action has been made to counteract the destructive effect of governmental prosecution and competition.

The industry has been faced with a number of important legal issues. The combination of this uncertainty, plus

the Federal government's hostile attitude, was reflected in the depressed value of certain operating and holding companies' bonds and stocks. The figures are too well known to repeat; suffice it to say that capital has taken flight from many of the companies in the industry.

What did the Bell system do when the Federal government accused it of monopoly, high rates, and financial pyramiding years ago? The first step was to put a man at the helm of the system well qualified to reenlist the support of the public. The campaign to increase the respect of the public toward state commissions was inaugurated. The program was extended even further. Its late President Vail realized that its business was subject to "control and regulation far stronger than that exercised by commissions and legislators." He acknowledged the potency of the "power of public desire and public selfishness, which, if not regulated or controlled, will lead to chaos and disaster." That kind of regulation or control, he said, is "common sense, which, directed by education and observation, and rightfully administered and regulated, will serve the interests of all."

WHEN both the major political parties of our land condemn monopolies, it is easy for the man on



Q"THE [electrical] industry is operating on a more efficient and economical basis than at any time in its history. Its average rate for service has reached a new low and the consumption per customer has reached a new high. The financial condition of both the holding and operating companies is an open book, and the holding company can no longer be accused of milking its subsidiaries."

PUBLIC UTILITIES FORTNIGHTLY

the street to hold the view that legal monopolies of electric companies are too big to be regulated. The need of a counterideology on the part of the private industry is imperative.

Overtures for peace between the agencies of the Federal government and the private companies will help to avert open warfare, but will not, if successful, reverse the government's progress toward government ownership and operation. The Federal Supreme Court decisions validating loans and grants to municipalities for electric plants no doubt tend to encourage the trend toward public ownership and operation. On the other hand, the true facts about the economy of private ownership and operation should be presented to the public.

The private electric companies perform a continuing service, the momentum of which is strong enough to outlast the policies of the present administration. Economic and political changes will occur beyond the control and office tenure of the present administration. The electric industry should be ready for such changes by creating as friendly a public opinion as possible. A program is necessary to counteract the mass psychology which may be influenced by the economic and political tides to come.

THE true story that can be projected before the attention of the public by the performance of good service at low cost is not enough. The contacts of the key-men of the various companies with community and trade associations are not enough. Extensive campaigns to sell load-building appliances are also not enough. These arms of activity should be extended and

dramatized by a constructive and effective program of information.

What, then, should be the program? It should be divided into two major parts. One is personnel, and the other publicity.

To place the electric company favorably in the public's mind requires more conscientious attention to the company's personnel. A certain pride in and loyalty for the company is absolutely essential on the part of all employees. Such a company spirit should be nourished and cherished by the key-men in the company. The employees should be taught to think of the company as "we" instead of "it." Special care should be taken by the heads of departments to keep the spirit of initiative fresh and vigorous, despite the increased restrictions placed by government through its multiple regulatory commissions. As a major industry of the country, it should possess outstanding experts in each division of the business. Adequate wages and salaries, and recognition of emergency overtime work, are essential to a wholesome competitive attitude. Excessive salaries bring untold harm on public relations.

Opportunities should frequently be made for young men to be employed. The spirit of youth should permeate the organization. Progressive technique should be constantly studied and unprejudiced ideals constantly maintained. Too many organizations have been stifled by not bringing the best men forward.

To secure executives who possess qualities for representative leadership in the community is not only necessary but difficult. The business leadership

ELECTRIC POWER UTILITIES SHOULD SPEAK UP



Encouragement of Community Interest

"REPRESENTATIVE men of the community should be elected to the board of directors of the local company as another means of encouraging community interest. Greater assurance is warranted that the company's business will be conducted for the benefit of the community. Also, the company will have a double check on the attitude of the representative citizen."

that is going to bring a favorable change in public relations has not yet made itself felt extensively. Industrial society should and must produce leaders that can initiate change gracefully.

Sometimes the electric company's officers are not abreast of the changes taking place in the community. For the past five years politicians have assumed the leadership and have imposed new problems on old problems which cannot be ignored indefinitely. The utility leaders should be watchful for the types of new industrial leaders who will emerge, and seek their counsel and services.

Representative men of the community should be elected to the board of directors of the local company as another means of encouraging community interest. Greater assurance is warranted that the company's business will be conducted for the benefit of the community. Also, the company will have a double check on the attitude of the representative citizen.

Under all situations the representative employees should be of such character and personality as to enhance the prestige of the company. If these men and women are not successful exhibits, any public program will soon lose its momentum.

WHILE the industry has made excellent progress in selling its services, especially within the last few years, that program has been the only united effort of the industry to obtain increasing public approval. The Washington bureaucrats have successfully diverted much of the industry's attention from carrying out the normal public responsibilities of the companies in their service areas. Washington interest has been substituted in a large measure for community interest.

Some real self-analysis is most desirable by each electric system. It is easy to say that the industry is selling more kilowatt hours per customer at progressively lower costs and that it is

PUBLIC UTILITIES FORTNIGHTLY

paying higher wages and taxes as the justification of the existence of the private companies. That is not enough. Is it doing a better job than the service of governmental or municipal ownership and operation, other factors being equal?

Has it convinced the army of its employees that they are working for a just and proper cause? Are the stockholders aware of the sacrifice that may be required if the cause of private ownership and operation is to be convincingly proved to the public?

Furthermore, what is the vision of the leaders of the industry? What is the goal that they are working for? While it is true that successful managements must produce fair returns for the stockholders, the longer term perspective should be held in view. The stockholders' position should be protected by constant progress in reducing rates, increasing the value of service, and more efficient operation so that the community is conscious of the benefits of regulated private operation and ownership.

What are the noteworthy gains that have been made in the electrification of the nation by a regulated private industry?

1 REMARKABLE progress has been accomplished during the past three decades in pushing back the so-called "social frontiers." This accomplishment is the envy of the rest of the world. A delegation of British trade unions to this country decided that the high degree of electrification of the country "is the envy of every foreign country, and the benefit of such development is found in the solution of labor problems."

NOV. 9, 1939

2 THE pioneering spirit, exemplified by the founders under the leadership of the late Thomas A. Edison, is passing from the period of expansion into a new period of integration. Advanced technique is the order of the day. Higher boiler efficiency and superimposed turbines lead the way to greater operating economies. The reliability of service is becoming more constant. The political pressure for hydroelectric power will gradually be worn away by persistent technological progress.

3 THE steady decline in the national average of the cost of electric service is an outstanding success compared with the trend of higher living costs and higher taxes. This accomplishment needs more dramatization so that the man on the street may realize what is going on. A more forceful presentation should be made. For example, moving electrical signs in colors are an excellent medium for public display. This medium has been grossly neglected by the electric companies.

4 LAST, but not least, the industry is operating on an honest basis under heavy taxation and without Federal subsidies or grants. Its billing for service is practically free from human error. Its books are audited by certified public accountants. Its operations, contracts, and statements are reviewed by governmental commissions. Can governmental agencies and municipal bureaus claim this distinction? It is regrettable that they cannot. It is more regrettable that they oppose such a frank policy for their own operations.

The most valuable form of publicity is news. Public opinion is largely

ELECTRIC POWER UTILITIES SHOULD SPEAK UP

formed upon news and not upon information received at lectures, scientific demonstrations, or class magazines. While the industry is endeavoring to cover press releases of national legislative importance, the individual company should be better equipped to furnish newspapers with ready and authoritative information when desired. The progressive electric companies or systems of companies will automatically make favorable news in pressing forward to serve the public through its socialized service.

News is not enough to carry the industry's message of progress. A national radio program with appeal to the public in the lower income brackets should be especially valuable in dramatizing factual information about the progress of the industry and the value and place of state and Federal commissions. The radio has established itself as an effective medium in winning public approval. Its use as a public contact is singularly appropriate to the electric industry.

Finally, an advertising program in national weekly magazines with circulations in excess of one million subscribers, in addition to other appropriate periodicals, would complete an effective program. This group of magazines would reach an articulate mass of the population and eliminate as far as possible class groups.

The success of the railroads in carrying their message to the people

through magazine advertising is an outstanding example. The railroads have presented a united front to regain lost prestige despite different public relations' policies of individual railroads, numerous corporate reorganizations, and employment problems. Their handicaps have been far greater than those facing the electric industry.

It is true that this program of information is expensive. It is also true that the industry has over twelve billion dollars of valuable property to protect against confiscation and unfair governmental or municipal competition. The stockholders of the utility systems should willingly share the expense of such a program, thereby avoiding any accusation that the consumer is paying the publicity bill.

In considering this elaborate program, a very important feature is the matter of continuity. Once the program has been launched, it should be extended well into the future. Proof of the value of continuity can be realized by observing the results of the Bell system advertising program. The proposed information program should be pushed forward just as constantly as progress is being made in the technological development of the industry.

Ample material is available to work out an information program on a scientific basis. Such a program can only be successful if the industry is convinced that it is working for a cause.

Q"REASONABLE taxation is one of the best assurances of business prosperity. The essence of our democracy is the conducting of our government within the ability of our people to pay."

—HARRY FLOOD BYRD,
U. S. Senator from Virginia.



Wire and Wireless Communication

OCTOBER was a fairly quiet month along the communications front. The FCC has been going along not only with its telephone regulation but with its more volatile and controversial chore of radio regulation almost with unaccustomed calm. The era of harmony, if not good feeling, which descended upon the FCC nearly six months ago for virtually the first time in its stormy career, has apparently deepened with the ascension to the chairmanship of James Lawrence Fly.

Perhaps the only noteworthy news story coming from the FCC during the month was one inspired by the efforts which Mr. Fly is supposed to be making towards the merger of the two national telegraph systems. Nothing was said or done officially by the FCC in this connection; but the newspaper men, recognizing in Chairman Fly an official who is inclined to take important steps with a minimum of fanfare, sensed that just such steps were being taken when they found out that the chairman and Chief Accountant Norfleet had been talking over merger possibilities with officials of the two national telegraph companies.

The telegraph merger, it may be recalled, was the subject matter for the creation of a special investigating committee by the Senate during the last regular session. However, this committee has practically no money, which means that the real labor of assembling data on the numerous and complicated angles affecting any proposed consolidation of the telegraph companies must inevitably fall

upon the FCC. In this connection, the recent transfer of Robert M. Cooper, a young attorney, to the FCC staff from the Justice Department (where he had been handling some of the government's litigation involving the telegraph companies) is noteworthy.

WETHER anything will come of this latest effort to solve one of the most obstinate economic problems in American communications history remains to be seen. The first step will probably be a recommendation by the Senate committee for a Federal law that would permit such a merger. This will have to be done as a preliminary to avoid running afoul of the Federal antitrust laws. After that the real task of straightening out the conflicting interests of telegraph patrons, employees, and investors will have to be undertaken.

All factions seem to be agreed that a merger of the two national wire systems would be a desirable accomplishment, but there is no agreement as to the concessions which may be required in various quarters in order to put through any effective consolidation program.

One other FCC action which may be of passing interest to the communications industry was the appointment of a new press relations chief—George O. Gillingham. The FCC press relations bureau has long been a trouble spot and the dismissal of its former chieftain, George F. Wisner, by former Chairman McNinch was one of the most controversial incidents in the latter's FCC career.

WIRE AND WIRELESS COMMUNICATION

Following the departure of Mr. Wisner, M. L. Ramsay, a research chief, was borrowed from REA for a short while, but apparently the FCC press division was still not working smoothly enough. There is considerable hope among the Washington newspaper men that Mr. Gillingham will fill the bill, as he is a popular member of the local journalistic fraternity.

Officially, Mr. Gillingham has only been borrowed from the TVA for three months. He previously had been in charge of TVA's publicity office in Washington. This suggests the possibility that the Gillingham appointment may have been influenced by Chairman Fly, who, as former general counsel for the TVA, must have been in close contact with the TVA's Washington news bureau. It is quite likely that before the expiration of the 3-month period some arrangement will be made for Mr. Gillingham to continue his new duties.

* * * *

THE much publicized alliance between the FCC and the Pennsylvania commission against certain rates and service angles of the Bell Telephone Company of Pennsylvania seems to be assuming smaller proportions as the true facts about the situation become apparent through the smoke screen of sensational publicity. As reported in the last issue of this department, the Pennsylvania commission's request for FCC collaboration in its investigation of the rate structure of the Pennsylvania telephone company was referred to a special group of the FCC headed by Commissioner Walker, to determine to what extent the Federal board is in a position to give assistance, if any.

Some of the more spectacular earlier stories in the press about the Pennsylvania commission's request for FCC aid in running down alleged illegal activities of the Pennsylvania telephone company's dissemination of racing information now appear to have been somewhat misleading. The fact of the matter seems to be that the Pennsylvania commission itself had made no formal request for FCC coöperation along this line, but that one

member of the Pennsylvania commission had made unofficial inquiries after the Pennsylvania commission itself had declined to take official action.

* * * *

THE Oklahoma Corporation Commission and the Southwestern Bell Telephone Company are going over telephone rates charged in every city in the state served by the company. This, the most ambitious investigation of a utility ever attempted by the commission, may require a month of testimony, and was launched October 19th.

Testimony will be largely of a technical nature relating to the value of the telephone company's investment in state exchanges and the rate of return for its money being received. The company claims it is losing money on many of the 144 exchanges operated in Oklahoma and, as a result, is not obtaining a fair return for its investment from the state as a whole.

The company is seeking rate increases in a number of cities, including a permanent increase for the 22 cities in which there is now a temporary increase, and is contending it should not be forced to operate any exchange at a loss.

The company was expected to introduce detailed evidence into the record regarding each of the exchanges. A typical exchange may possibly be selected to demonstrate the evidentiary basis.

* * * *

SAVINGS totaling \$2,200,000 to telephone subscribers in the Los Angeles metropolitan and the San Francisco-East Bay areas through a substantial reduction in toll charges were announced on October 10th by the California Railroad Commission.

Telephone subscribers in the Los Angeles exchange will save approximately \$900,000, those in the exchanges immediately contiguous to the Los Angeles exchange approximately \$700,000, and those subscribers in the San Francisco-East Bay exchanges approximately \$600,000 annually. Ray C. Wakefield, president of the commission, said:

This is probably the most fundamental and far-reaching development in telephone

PUBLIC UTILITIES FORTNIGHTLY

rate and service plans affecting the metropolitan area ever inaugurated. The plan, barring a major economic change in the near future, encompasses, besides the reduction in toll charges between the cities of the metropolitan area, a material saving in foreign exchange rates and enlargement of base rate areas. Because of the vast territory affected and the hundreds of thousands of telephones in use, it will require approximately a year for the entire plan to become effective. However, the initial step will be taken in December and further steps during the spring and early summer.

The new telephone plan resulted from an investigation and studies made at the request of the railroad commission by its staff and in conjunction with engineers of the Southern California Telephone Company during the last eighteen months.

During this time the telephone habits of 670,000 telephone subscribers in the metropolitan area were studied. Co-operating in this were also representatives of Associated Telephone Company, Ltd., Whittier Home Telephone & Telegraph Company, Downey Home Telephone & Telegraph Company, California Water & Telephone Company, and Sunland Rural Telephone Company. Assisting also were representatives of City Attorney Ray L. Chesebro of Los Angeles and K. Charles Bean, chief engineer and general manager of the Los Angeles Board of Public Utilities and Transportation, and officials of a number of other cities.

* * * *

A NEW intrastate telephone rate was scheduled to go into effect November 1st to save North Carolinians approximately \$50,000 a year on long-distance toll charges, according to an announcement by Utilities Commissioner Stanley Winborne. The new tolls, which will apply to the Southern Bell Telephone Company, the High Point Telephone Company, and the Carolina Telephone & Telegraph Company, will be almost the same as interstate rates of the Southern Bell Company, although the rates for certain mileages within North Carolina still will be slightly higher than interstate charges.

Winborne said two other long-distance toll rate cuts in the past two years would

NOV. 9, 1939

bring the total yearly saving to customers to about \$175,000.

* * * *

THE Ohio Public Utilities Commission on October 13th ordered the Ohio Bell Telephone Company to discontinue January 1, 1940, the 15-cent monthly charge for the cradle type of telephones, resulting in a \$12,000 annual net reduction in the company's income.

At the same time, the commission's order permitted the company to extend the move charge and the instrument change charge of \$1 to include service connections. In addition to the reduction in annual income, the company will be forced to make capital expenditures of approximately \$3,000,000.

With the introduction of the cradle-type telephone in 1926, the company charged 50 cents per month for an unlimited period, and two years later this charge was cut to 25 cents. Upon order of the commission, however, in 1933, the period in which such charges could be collected was limited to thirty-six months, and three years later the company voluntarily reduced this charge to 15 cents for a 36-month period.

In explaining the charge of \$1 for removal or service connections, Randolph Eide, Ohio Bell president, pointed out the company incurred expenses which could not be capitalized. He said:

These expenses include the cost of handling and recording applications, opening and closing accounts, establishing directory information and change-number records, together with the writing of the necessary orders for use of the company's billing, information, and repair departments.

Meanwhile, the company filed with the commission its final report on the refunding of \$7,063,671 to subscribers in more than 77 Ohio communities, as the result of the commission's order of April 26, 1938.

Another fund of \$172,306 in principal remained undistributed, as checks for this amount were sent to the subscribers at their last known address and returned unclaimed. These funds will revert to the respective municipalities in which former subscribers were located. Total

WIRE AND WIRELESS COMMUNICATION

number of refunds was 498,944, while unclaimed refunds numbered 57,801.

* * *

THE Independent Union of Telephone Operators and the Wisconsin Telephone Company have concluded an agreement covering 350 employees in Madison and about 2,250 others in 90 communities throughout the state, it was announced last month in Milwaukee.

Other cities in the Madison area covered by the agreement included Baraboo, Beaver Dam, Columbus, Darlington, Evansville, Ft. Atkinson, Jefferson, Juneau, Lancaster, Shullsburg, Stoughton, Watertown, and Waupun.

The Independent is recognized by the National Labor Relations Board as a legitimate union. The NLRB has recognized the American Federation of Labor's Brotherhood of Electrical Workers as bargaining agent for the utility's employees at Racine, Kenosha, Janesville, and Superior.

The agreement covered wages, hours, and working conditions in the company's traffic department, made the union the sole bargaining agent, and provided one week's paid vacation after a year of service, two weeks after two years, and three weeks after twenty years.

* * *

REGULATORY circles were mildly surprised at the announcement of the Wisconsin attorney general's office that it would appeal the Wisconsin Telephone Company rate case to the U. S. Supreme Court at the request of the state public service commission. It had been expected that the doubtfulness of finding a so-called "Federal question" in this rate case in which the state commission lost, not only in the highest court, but also in the lower state court, might deter the commission from seeking to prosecute the appeal any further. Instances of a state commission appealing from the adverse ruling of the highest court of its own state are very rare.

The fact that the Wisconsin commission took this action at one of its first meetings with a full quorum after two vacancies (out of a total membership of three commissioners) had been filled by

Republican Governor Julius P. Heil was also noted.

According to the state attorney general, only a 1936 order of the commission directing the Wisconsin Telephone Company to cut local rates \$850,000 a year would be appealed. This order had been reversed in the circuit court of Dane county and again in the state supreme court.

At the same time the Wisconsin commission decided not to fight reversals in the U. S. District Court of its 1932 and 1933 temporary orders, which would have cut company rates about \$3,000,000 for those two years. Again, the commission will not appeal the state circuit court's reversal of its 1934 temporary order which would have meant \$1,000,000 in rate reductions for that year.

The final order requiring an annual \$850,000 local rate cut for 96 Wisconsin exchanges will, therefore, be the only issue to come before the U. S. Supreme Court.

* * *

THE telephone and telegraph industries are following with interest the change in the administrative head of the Federal wage-hour bureau. Despite numerous and conflicting rumors, no authentic explanation has been forthcoming concerning the sudden replacement of Administrator Elmer F. Andrews.

According to some reports, Andrews was the object of intradepartmental jealousy emanating chiefly from the Labor Department, and according to others he was the victim of inner-circle New Deal reformers who did not think his enforcement of the wage-hour law was sufficiently vigorous. On the other hand, Andrews is stated to have been disgusted over the way the district manager jobs and other key positions on his staff were being loaded down with lame-duck Congressmen and other political favorites.

Be that as it may, Lieutenant Colonel Fleming, new head of the Wage-Hour Administration, has the reputation of being a forthright and vigorous administrator. His handling of the controversial post is being watched carefully.



Financial News and Comment

By OWEN ELY

Another "Putsch" against Utilities?

SOME Washington commentators see dire signs and portents for the utilities in the recent untimely demise of the War Industries Board, followed by the President's merger of the National Defense Power Committee with the National Power Policy Committee. It will be recalled that the national defense organization, headed by Louis Johnson, Assistant Secretary of War, included representatives of the Navy and the power industry. This has been displaced by a group made up exclusively of civilian government officials and obviously weighted on the anti-utility side. Secretary Ickes is chairman, and Benjamin Cohen, continuing as general counsel of the new organization, probably will guide the committee under the direct supervision of the White House.

Whether the committee will actually formulate a "consistent power policy," as announced by the President, is open to question. The original committee, created in 1934, was charged with the same duty, but no vigorous policy was adopted or even formulated. However, it is worthy of note that no reason was given by the President for not permitting the National Defense Power Committee to finish the job after having admittedly completed the "major part" of its work of estimating probable power needs in peace and in war. On the contrary, the new committee is to "give its first attention to the immediate concrete steps necessary to insure the meeting of these needs." (See also p. 641.)

Carter Field in the *Electrical World* holds that

Shrewd observers in Washington do not

suspect for a moment that the failure of the [War Industries] Board to include labor representatives was the real explanation of the drive which has succeeded in abolishing this industrial war plans organization. Observers do not believe that the Corcorans and Cohens are so stupid. The real motive was and is antagonism to war plans which permit the continuance of the operations of the present capitalistic system . . .

It is no secret, of course, that the left wingers contemplate the taking over of the entire electric utility industry, so that no one in this country could use the current save by buying it from a government agency.

Indeed there are more than whispers about a chart which gives just who would be what in the management of the various utilities of the country once they were taken over by the government.

CHAIRMAN C. E. Groesbeck of Electric Bond and Share has advised President Roosevelt that the utilities are better prepared than they were at the outbreak of the war in 1917. In the past twelve months the Electric Bond system has authorized for construction 540,000 kilowatts of additional capacity, of which nearly half is already completed; and 39,000 miles of new lines were added for integrating the company's system with private and public power plants.

Much interconnection was accomplished in the twenties through the medium of holding companies and financial "communities of interests." The program has lagged in recent years, but plans were completed last June for setting up a series of regional committees, with a central coördinating body, and these private groups are now actively at work. It would seem more reasonable for the government to consult and collaborate with these experts, who are thoroughly familiar with local operating conditions, than to attempt the setting up of some brand new, grandiose "grid" system.

FINANCIAL NEWS AND COMMENT

The alleged new threat to the independence of the utility industry comes at a time when more harmonious relations seemed to be developing. Thus, the recent signing of a contract between the Electric Bond and Share system for purchase of the power output of Nebraska's "little TVA" had been hailed as ending the competitive aspects of the Federal hydro program. With the TVA issue largely out of the way and negotiations pending for the sale of Bonneville power to private utilities, the industry had begun to feel that government rivalry, at least in the distributing field, was largely over.

A MORE hopeful feeling had also recently prevailed regarding the attitude of the SEC in the matter of the 20-day seasoning period in new security offerings. This regulation had been widely criticized by investment bankers and financial editors as a needless handicap, which at times forced new issues into private financing channels. Thus, the *Times* points out that the New York Telephone Company would probably have secured a better price for its \$75,000,000 recent issue through a well-timed public offering, since the company's 3½ per cent bonds have gained over 6 points since the new 3½s were hurriedly placed with insurance companies.

But SEC Chairman Jerome Frank, in a letter to Jean Witter, former president of the Investment Bankers Association, (see p. 642) made it clear that the commission "has not formulated any program for amendment." He did, however, state that the commission is "continuously studying the desirability and necessity of statutory revisions of the 1933 act."

While § 11 of the Holding Company Act still remains as much of a mystery as ever, increased activity has been noted at SEC headquarters under the direction of Commissioner Healy. Associated Gas & Electric has been energetically developing an integration program, with announcements of proposed changes almost daily. Hearings on the American Gas and Electric plan, originally scheduled for mid-September, have been postponed,

and action on Columbia Gas is also awaited.

Both of these companies are comparatively well integrated, however, and SEC comment may not prove fully enlightening regarding the problems of more scattered systems.

To summarize, the industry has recently made tangible gains in its relations with Washington and probably will not be adversely affected, even by the creation of the new Ickes board already mentioned. However, the latter development is a situation that will still bear close and careful watching by the entire industry.

New Financing

DESPITE the fact that the corporate bond market has recovered practically all the ground lost during August and early September, public financing continues to be limited to a few small municipal issues—\$168,100,000 utility issues, all held over since August, remain in registration with the SEC, but there is no indication of how soon the underwriters will proceed.

Central Maine Power Company plans to sell \$1,250,000 first 5s of 1964 to the Equitable Life Assurance Society at par, and to offer 5,000 shares of common stock to present stockholders. *New England Public Service Company* agreeing to take unsubscribed stock at \$100 in settlement of advances.

Philadelphia Electric Company plans to sell \$10,000,000 2½ per cent promissory notes due 1940-49, and \$50,000 shares at \$4.25 preferred stock, to insurance companies; proceeds from the notes are to pay off maturing bank loans, while sale of the preferred stock will reimburse the treasury for improvements and increase working capital.

The Philadelphia Company of the Standard Gas and Electric system will submit a \$65,000,000 refunding program to stockholders December 5th. The company will probably offer \$40,000,000 debentures and \$25,000,000 preferred stock, convertible into common stock of

PUBLIC UTILITIES FORTNIGHTLY

the Duquesne Light Company. The presently outstanding 5 per cent bonds are secured by all of the outstanding 2,-152,828 common shares of Duquesne Light, and the new debentures also will be similarly secured.

Kings County Lighting Company, subsidiary of Long Island Lighting, was authorized by the New York Public Service Commission to offer \$3,900,000 first 4½s due 1964, and negotiations were reported under way for a private sale of the issue to insurance companies; but because of restrictive requirements in the commission's order (presumably in connection with a sinking fund), the company decided not to proceed with the financing.

Associated Gas & Electric

NYPANJ" (NY PA NJ Utilities Company) plans to file \$50,000,000 debentures with the SEC in the near future. The company is expected to become the nucleus of the Associated system when the program of integration is completed, and proposes to apply the proceeds of the new debenture issues as follows:

(1) Retirement of NY PA NJ Utilities Company debentures and preferred stock and the payment of its bank loans.

(2) Payment at maturity of Associated Gas & Electric Corporation 8 per cent bonds due March 15, 1940.

(3) Payment of the balance of the company's Federal income tax settlement.

(4) Completion of acquisition of common stock of Jersey Central Power & Light Company.

This financing is expected to simplify system capital structure and constitute a major step towards integration. A plan for distributing the securities of Associated Gas & Electric Corporation among security holders of the Associated Gas & Electric Company is under consideration, together with plans for eliminating other subholding companies.

The following companies may later be eliminated by merger or dissolution: Associated Utilities Corporation, General Utility Investors Corporation, Central U. S. Utilities Company, Northeastern Water Companies, Inc., Associated Investing Corp., Southeastern Electric & Gas Company, The Associated Corp., Southeastern Investing Corporation, Eastern Power Company, and Pennsylvania Investing Corporation.

Other steps proposed include the elimination from the system's corporate structure by merger or sale of the following companies: Litchfield Electric Light & Power Company, Owego Gas Corporation, Logan Light, Heat and Power Company, Glen Rock Electric Light & Power Company, Edison Light & Power Company, and Maryland Public Service Company.

NY PA NJ Utilities Company has, however, withdrawn its SEC application for acquisition of certain securities of the New York Public Service Corporation, the Metropolitan Edison Company, the New Jersey Power & Light Company, and the Rochester Gas and Electric Corporation. The securities would have been obtained from the General Utility Investors Corporation and New Jersey Power & Light.

Associated Gas system plans also include the sale of properties in Florida, Georgia, South Carolina, Ohio, and Indiana; dissolution of the York Railways Company; and rearrangement of the properties in New York state. Upon completion of the proposed plan, Associated Gas would confine its operations primarily to New York, Pennsylvania, and New Jersey.

Regarding its New York state properties, it is reported that Associated has been considering the sale of upstate units to Niagara Hudson Power, and its Staten Island plant to Consolidated Edison. The latter deal is said to be handicapped by a wide difference in viewpoint regarding price.

As the first step in the divestment of properties in Ohio from the Associated system, an application was filed with the

FINANCIAL NEWS AND COMMENT

Ohio Public Utilities Commission seeking permission to consolidate six of Associated's controlled properties into a single group under a new name. Once this has been accomplished, it is proposed to effect a rearrangement of corporate structure and to make a public offering of the securities.

Companies involved in the merger are the Ohio-Midland Light & Power Company, the Portsmouth Gas Company, the General Utility Company, the New London Power Company, the Western Reserve Power & Light Company, and the Ohio Northern Public Service Company. The application filed with the commission seeks approval of the merger of the first five companies into Ohio Northern Public Service and the changing of the name of the consolidation to the Ohio Electric and Gas Company.

As a collateral feature of the plan, it is proposed that the consolidated corporation will issue in exchange for present outstanding stocks and bonds of the companies involved new obligations in the following amounts: \$3,300,000 of first mortgage 25-year 4 per cent bonds, \$1,200,000 in 6 per cent preferred stock, and 85,000 shares of \$1 par common stock. The new securities are to be marketed at not less than \$99 for the bonds, \$94 for the preferred stock, and \$7.75 a share for the common stock.

GENERAL Gas & Electric Corporation, on October 10th, filed with the SEC a plan for divestment of assets, simplification of corporate structure, and equitable distribution of voting power. Under terms of the plan, it is proposed to eliminate all of the debt of General Gas and to have outstanding only two classes of stock in place of the seven classes of stock now outstanding. The two classes will be the present \$5 prior preferred and a new common stock issue. Holders of present \$5 preferred stock will receive, in addition to their rights and privileges, the opportunity, for five years from the effective date of the plan, to convert their stock into new common shares on the basis of seven shares of

the new common for each share of preferred.

Public holders of the securities of General Gas will be entitled to receive in exchange for their equities new securities on the following basis: 4 per cent interest-bearing scrip, one share of \$5 preferred for each \$100 principal amount of such scrip, with adjustments; cumulative preferred stocks, \$5 preferred stock on an adjusted basis; Class A and B common stocks, new common stock on the basis of one new share for each 20 held. Associated Gas & Electric Corporation is to surrender to General Gas all of its holdings in securities of the latter in exchange for 885,048 shares of the new common and the delivery by General Gas to Associated of the entire investment in Southern Electric Utilities Company.

By simplifying and improving its capital structure, General Gas will be in a position to take steps toward funding the present bank loans, purchase-money obligations, and other indebtedness of subsidiaries, on completion of which, if relief may be obtained from burdensome transfer taxes, Southeastern Electric and Gas Company and Eastern Power Company, subholding companies, and Southeastern Investing Corporation, an investment subsidiary, can be eliminated, making General Gas the direct owner of the operating companies in the system.

The New York Times comments on these various plans as follows:

Latest developments in the Associated Gas & Electric Company picture indicate an overwhelming desire by Associated officials to dispose of utility properties that do not conform to the integration provisions of the Holding Company Act. While the SEC has not ordered, or, it is believed, even suggested what Associated should sell and retain under integration, the speed with which the company is lopping off properties has taken the rest of the utility industry by surprise.

Three-year Appliance Credit Criticized

THE Credit Management Division of the National Retail Dry Goods As-

PUBLIC UTILITIES FORTNIGHTLY

sociation in its publication, *Credit Currents*, condemns 36-month credit terms for major appliances, recently reintroduced by two sales finance companies. J. Anton Hagios, manager of the division, pointed out:

In view of present improved business conditions, such lengthening of terms at this time is considered as unwise as it is unwarranted. If anything, current credit policy should call for maximum terms of twenty-four to thirty months at the most, and as conditions improved this maximum might gradually even be restricted somewhat more in order to provide slack for possible future liberalization of terms, so as to equalize sales during the next period of declining business activity. . . .

The disastrous effect of lengthening terms unduly was clearly borne out by the repossession experience of a nationally known instalment operator. This company averaged two repossession out of every 100 units sold on terms of 20 per cent down and twenty-four months' credit. The number of repossession doubled when the down payment was cut to 10 per cent and the terms extended to thirty months. When this company extended terms to thirty-six months, the repossession rate jumped so phenomenally that it was five to seven times greater than when terms of 20 per cent down and twenty-four months were in force.



Corporate News

COMMONWEALTH Edison of Chicago has increased its quarterly dividend rate from 40 cents to 45 cents per share, equivalent to an annual rate of \$1.80 (\$7.20 on the original stock basis before the August, 1936, split-up). Earnings for the calendar year are estimated at about the same as last year, around \$2.40, despite rate reductions and a large increase in number of shares outstanding.

Mississippi Power Company proposes to sell certain properties in northern Mississippi to TVA and a group of municipalities for \$2,000,000, to avoid duplication of facilities.

Portland Gas & Coke Company plans to issue 6,000 shares of common stock for sale at \$100 to its parent company, American Power & Light; also to extend

for ten years its \$9,674,000 refunding 5s and \$3,000,000 general 4½s due January 1st.

Merger of Philadelphia Rapid Transit Company and underlying companies into The Philadelphia Transportation Company with \$85,000,000 capital has been approved by stockholders, but the reorganization plan must still be approved by stockholders of subsidiaries and by the Federal court. A \$20,000,000 modernization program is planned.

American Telephone and Telegraph Company (parent company only) covered its dividend for the third quarter with earnings of \$2.39 a share compared with \$1.92 per share last year. During the last nine months, the Bell system has increased the number of telephones in operation by 527,000 compared with a gain of 245,000 in the corresponding months last year.

Discussion is reviving in Washington political circles regarding the possibility of merging Western Union and Postal Telegraph land lines. Repeal of the White Act seems a necessary step. Senator Wheeler, chairman of a congressional committee appointed to study the project, has gathered a great deal of data; and committee hearings are expected later this year, with a report early next session. James L. Fly, chairman of the Communications Commission, is said to be at work on a plan to pave the way for consolidation. (See p. 622.)

Postal Telegraph Company has agreed to pay its messengers 30 cents an hour with a guaranteed 40-hour week, providing total wage benefits estimated at \$1,000,000. It appears likely that Western Union will make a similar arrangement with employees.

Central States Power & Light Corporation, subsidiary of Utilities Power & Light Corporation, has offered to buy its own first 5½s of 1953 at 72 until a fund of \$1,855,413 (resulting from sale of Canadian subsidiaries) is exhausted.

FINANCIAL NEWS AND COMMENT

EARNINGS STATEMENTS OF LEADING UTILITY SYSTEMS

Electric and Gas	No. of Months Included	End Period	System Earnings per Share (a)			
			Last Period	Previous Period	Per Cent Increase	Per Cent Decrease
American Gas & Electric	12	Aug. 31 (b)	\$2.51	\$2.16	16%	..
American Power & Lt. (Pfd.)	12	Aug. 31 (b)	5.49	5.48	..	..
American Water Works	12	June 30 (c)	.48	.50	..	4%
Boston Edison	12	June 30 (c)	9.20	8.52	8	..
Columbia Gas & Electric	12	June 30 (c)	.49	.43	14	..
Commonwealth Edison	12	June 30 (c)	2.45(g)	2.39(g)	2	..
Commonwealth & Southern (Pfd.)	12	Aug. 31 (b)	8.69	7.00	24	..
Consolidated Edison, N. Y.	12	June 30 (c)	2.09	2.20	..	5
Cons. Gas of Baltimore	12	Aug. 31	4.58	3.99	15	..
Detroit Edison	12	Sept. 30	7.84	5.37	46	..
Elec. Power & Lt. (1st Pfd.)	12	Aug. 31 (b)	5.57	7.30	..	24
Engineers Public Service	12	Aug. 31(b)	1.41(h)	.73	..	..
Inter. Hydro-Elec. (Pfd.)	12	June 30	9.14	17.01	..	46
Long Island Lighting (Pfd.)	12	June 30 (c)	4.83	4.53	6	..
Middle West Corp.	6	June 30	.46	.21	118	..
National Power & Light	12	Aug. 31 (b)	1.12	1.27	..	12
Niagara Hudson Power	12	June 30 (c)	.54	.52	4	..
North American Co.	12	June 30	1.72	1.68	2	..
Pacific Gas & Electric	12	June 30	2.75	2.56	7	..
Public Service Corp. of N. J.	12	Aug. 31 (b)	2.86	2.28	13	..
Southern California Edison	12	June 30 (c)	2.34	2.01	16	..
Standard Gas & Elec. (Pr. Pfd.)	12	June 30	6.30	4.71	34	..
United Gas Improvement	12	June 30 (c)	.96	1.01	..	5
United Light & Power (Pfd.)	12	Aug. 31	5.77	6.80	..	15
<i>Gas Companies</i>						
American Light & Traction	12	Aug. 31	1.56	1.43	7	..
Brooklyn Union Gas	12	June 30 (c)	3.07	2.22	38	..
Lone Star Gas	12	June 30 (c)	1.07	.85	26	..
Pacific Lighting	12	June 30	4.46	3.69	21	..
Peoples Gas Light & Coke	12	June 30	2.72 (f)	2.74 (f)	..	1
United Gas Corp. (1st Pfd.)	12	Aug. 31 (b)	9.87	15.06	..	35
<i>Telephone & Telegraph</i>						
American Tel. & Tel.	12	Aug. 31 (c)	9.43	8.39	12	..
General Telephone	12	June 30	1.84(e)	..	..	..
Western Union Tel.	12	June 30	D .33(i)	D .31	..	..
<i>Traction Companies</i>						
Greyhound Corp.	12	June 30	2.17	1.72	26	..
Twin City Rapid Tran. (Pfd.)	6	June 30	4.38	1.81	141	..
<i>Systems outside United States</i>						
Amer. & Foreign Pwr. (Pfd.)	12	June 30	6.80	6.53	4	..
Inter. Tel. & Tel. (d)	6	June 30	.51	.68	..	25

D—Deficit.

- (a) On common stock, unless otherwise indicated following name of company; in some cases Federal surtax not deducted in 1938.
- (b) Earnings data also available for month indicated.
- (c) Data also available for quarter indicated.
- (d) Excludes Spanish subsidiaries and Postal Telephone & Telegraph Company.
- (e) Includes earnings of General Telephone Tri Corporation and subsidiaries from August 30, 1938 (date of acquisition).
- (f) After reservation for rate litigation.
- (g) Based on adjusted consolidated net income.
- (h) Excluding loss of Puget Sound Power & Light Company.
- (i) For the eight months ended August 31st there was a net loss of \$303,680 compared with a net loss of \$1,908,625 in the previous year.



What Others Think

Industrial Relations and The Utilities



RECENT national meetings of the American Transit Association and the American Gas Association in Los Angeles and New York city, respectively, revealed the considerable amount of attention being given to the subject of industrial relations. Papers along this line are usually classified as "public relations" affecting the utility's customers and "employee relations" affecting the utility workers. The underlying principles discussed, however, very often run parallel.

Out of a half-dozen addresses given at both meetings, which touched on the subject of labor relations, a speech by Harrison S. Robinson at the ATA meeting set down his suggestions in a 6-point program with remarkable clarity. Mr. Robinson's six points embody his answers to a hypothetical utility employer who asked for suggestions about what he might do to avoid labor trouble. Here is the program in brief:

1. Have a concrete labor policy in your business. If you cannot write it down, you haven't a policy. If you wouldn't care to read it to your assembled workers, it will get you into trouble. If it isn't so plain that your own workers can actually apply it to their relations with you, it won't do you or them any good. A labor policy expressed in words should start short and grow with experiences in your own establishment. When you have worked out a labor policy, don't hide it in a drawer. Use it.

2. Have you a vacant room in the House of Management marked "Employee Relations"? If you have, get a man (or woman) into it before somebody else does.

3. Choose a personnel man with as much care as a sales manager. They are the two hardest jobs to fill, partly because the personnel job is new to general business.

4. The foreman (and by that word I mean to describe every immediate supervisor of workmen) is the key person in employee relations and generally the weak-

est link in the chain of American business operations . . . The company starts right with the workers if the foreman knows as much or more about their jobs than they do, is fair and decent but firm and takes responsibility . . . A new reason for the foreman being a key man is that the National Labor Relations Board in its proceedings treats him as the representative of management . . .

5. If your employees join a labor union, do some self-examining. Did you join that chamber of commerce or trade association because you thought it was good for your business, well worth the cost, or because you were bullied into it, or were afraid to be alone? Is the management of your trade association sometimes good, sometimes stupid? Do you resign when it does something very dumb?

Stockholders, managers, workers, and customers all have more in common than in conflict. Yet there is often some real conflict between the self-interest of the customers and the company, between the self-interest of managers and stockholders, between the self-interest of all of them and the workers. When the existence of a conflict is asserted and the conflict exists, each side will press for its own advantage. The problem is to bring the pressures and the "advantages" into reasonable balance. The "employer" has the task of seeing the picture in all its parts and as a whole. The important thing is not to let your employees feel they are on the other side of a fence, even when they have a union. Sometimes union agents want to erect such "fences." It is for the employer to keep them down or get them down.

6. Finally, be philosophic, which does not mean soft, when workers who want no responsibility for planning, financing, and carrying on the business want to tell you what their wages, hours, and working conditions are to be. On the average they are not nearly so hard to deal with as are your competitors.

After all, an employer may be not unlike the mayor of a California city who, in office after a hard and expensive campaign, complained dolefully of the onerous duties of his office to a friend who had helped pay the campaign deficit. "My God, Jim," said the friend, "you hollered enough to get the

WHAT OTHERS THINK

job. Now quit crying unless you want to resign."

ALONG the general lines of improving public relations, an address by E. M. Tharp, vice president and general manager of the Ohio Fuel Gas Company, before the American Gas Association convention in New York city last month, was of more than passing interest. The improvement of public relations, said Mr. Tharp, must be approached in a common-sense attitude. Public relations is simply a new name for old-fashioned common sense and friendly human contacts which are no longer intimately possible in the large-scale, complex business organization of today. This does not mean that the public relations problem can be solved by trick phraseology, stereotyped formula, or pushing the entire problem onto some hired expert. Nor does it mean that public relations which have been going sour over a period of years can be improved in as many days or months. Mr. Tharp explains this point as follows:

If we have a misunderstanding or a breach of confidence or friendship with some personal acquaintance, what do we do to clear it up? Well, one of the things we are not likely to do is to hire a public relations expert to intercede for us or to put on some act for us. No, it is quite likely that the first step we would take would be to ascertain the occasion for the coolness. We would manifest anxious concern and seek by letter, telephone, or personal contact to find out what it is all about, then we would frankly and fully go into all elements of the affair by way of making complete explanation. During the unraveling and readjustment of this matter, we will learn that somewhere in the chain of relationships there occurred some word or action which was not clearly understood and occasioned doubt, and this with other incidents developed a breakdown of confidence. Now human beings in the mass are not much different from human beings individually, and those principles of conduct and concern which are effective with the individual are very likely to prove equally effective with a multiplicity of individuals.

The idea that infrequent individual error of conduct or performance is largely responsible for institutional public relations situations is not easily sustained. Groups of people in an organization develop habit patterns no less distinctly than individuals and it is

this pattern that is responsible for the good or bad opinion held by the public. It is a kind of composite personality made out of all the human manifestations of all the people speaking or acting for the organization.

Mr. Tharp seems to think that a great deal of benefit can be obtained in analyzing a given public relations problem through surveys conducted along the lines of the so-called "sampling poll" method recently popularized by Dr. Gallup. He referred to such a survey of people in a number of typical cities and towns who are asked such questions as "Which company is of the greatest overall importance to the American people?" "Which leads in research and in placing new products on the market?" "Which leads in reducing prices?" "Which has the highest regard for public interest?" The result was an astonishing revelation of how little definite impression the great corporations of this country have made upon the public mind. The first one as to national importance and regard for public interest was given to the Bell telephone system.

ANOTHER interesting survey cited by Mr. Tharp was one in which different classes of income groups were asked the question, "Do you believe the present government is helping business or hurting business?" In the lowest income group only 16.6 per cent said that the government is hurting business, whereas in the higher income group, which includes those more competent to judge or run a business, 43.8 per cent said government is hurting business.

Turning to the subject of industrial relations, Mr. Tharp cited a survey conducted sometime ago by the National Association of Manufacturers which revealed a high degree of fair-mindedness among employees in response to the question, "Why do men get fired?" Only 10 per cent blamed it on the boss; 5 per cent on union activities; 11 per cent on laziness; 15 per cent on disobedience; 21 per cent on carelessness; and 31 per cent on incompetence.

In other words, 85 per cent of the replies placed the blame upon the em-

PUBLIC UTILITIES FORTNIGHTLY



"EVER SINCE HE HEARD THE WAR HAS STARTED UP AGAIN, GRANDPA WON'T LET ANY GRAY LINE BUSSES COME DOWN THIS STREET"

ployee himself. Pointing out that such surveys can be the modern substitute for the intimate relationship which "our grandfathers" had with their employees and customers, Mr. Tharp concluded:

... Our public relations problems will be greatly simplified when we know better and understand those great groups of people who are our employees and our customers. We need to know that Mr. Average Man is a member of a family of four and that the members of this family are very likely to have the same opinions and prejudices. Their wants are only limited by their buying power. The average man barely finished elementary school. He shuns abstract ideas and abstract thinking. He remembers best what is repeated many times and things which are vivid and clear are likely to linger in his memory. This average man is a very selfish person and a creature of habit, dis-

posed to impression by hopeful and pleasant things of life. We should know him well because he is our employee and our customer.

Whenever we undertake the extension of a market or the planning of a general sales program, it is usually a prudent practice to find out everything available about the potentials, particularly the customer's attitude and buying power. Most of us have made market surveys of one kind or another for the purpose of setting up a sales campaign or revising one. It has been our experience that such a thorough survey takes so much time in process it is of doubtful value in its conclusion because of changed circumstances. The methods used by the Institute of Public Opinion and other similar organizations suggest a quicker and perhaps a more effective way of doing this thing. Ascertaining public opinion, likes and dislikes, desirables and undesirables, favors and antipathies, deserves a rather constant

WHAT OTHERS THINK

effort, so that direction can be determined and trends forecast.

Referring to his own organization, the speaker said that the instrumentality used by his company was a "consumer research" department. It is the function of this group to make systematic sampling polls of consumers and employees to determine opinion trends as they affect the utility business. These polls are taken periodically by mail and personal visitation, with the latter preferred. He cited a difficulty peculiar to his organization by reason of home rule regulation, whereby municipal officials were tempted to make a political football out of gas rates. He said that systematic analysis of public opinion aided in cutting down an epidemic of rate litigation from nearly 300 cases to 5 at the time his paper was delivered.

FINALLY, Mr. Tharp gave some interesting generalizations about public reaction gained through such customer surveys. He stated:

We learned that company contacts with customers are 99½ per cent satisfactory. The public is very complimentary of the individuals of our organization. There is a very high percentage that commend the meter reader, the service man, the contact clerk, the individuals of local management. Strange as it may seem, a major percentage condemn the company as a company. This might seem contradictory upon first consideration but we regard it as an advanced phase of a changing opinion. It is not reasonable to conclude that the individuals separately may have a good-will denied collectively. Other factors of our research serve to bear out this more encouraging view.

A large majority say the price of gas is too high, but this majority is shrinking. Only a small percentage have very definite ideas as to what a gas rate should be. Thirteen per cent favored a flat rate. Twenty per cent favored a sliding scale. Sixty-seven per cent admit they don't know. Eighty-seven per cent said they would use the same amount of gas even if the rates were increased. Fifty-five per cent said they would use no more gas if rates were reduced. In estimating their bills most customers estimated higher than actual.

In short, it is the opinion of this official that good public relations lies in simply doing more and more what people like and doing less and less of what they do not like. It follows that if you are going to do more what people like, you must know rather definitely what it is that they like. It is risky to hazard guessing or to depend upon intuition. The most plausible theoretical explanation may prove most fallacious in practice. On the other hand, the sampling interviews bring to light reactions which were not even suspected. Although it is still in a state of development, Mr. Tharp thinks that this new technique may prove a most valuable tool of management in exploring the real requirements of a sound public relations program for individual companies.

—F.X.W.

EMPLOYERS' RESPONSIBILITY IN LABOR RELATIONS. Address by Harrison S. Robinson before American Transit Association convention. Los Angeles, Cal. August 11, 1939.

ANALYZE, ORGANIZE, DEPUTIZE FOR PUBLIC RELATIONS. Address by E. M. Tharp before American Gas Association convention. New York, N. Y. October 9-12, 1939.

A Recent Analysis of the Working Capital Allowance

WORKING capital is the trade name in regulatory circles for a rather modest side dish in the full course procedure of a rate case. However, because it represents cash in hand, it commands more attention than any theoretical allowance for a similar amount which

might be lost in the bulk of the so-called "rate base."

And yet the literature on working capital, according to William A. Dittmer, public utility consultant of the Illinois Commerce Commission, is surprisingly meager. At any rate, Mr. Dittmer

PUBLIC UTILITIES FORTNIGHTLY

thought it was sufficiently important to justify a special article published in the August issue of *The Journal of Land & Public Utility Economics*. The result, it must be conceded, is an interesting discussion on this phase of rate-making procedure, which folks who have much to do along those lines might well make a note of against the time when the subject of working capital might become of pressing individual interest.

At the outset the author found little agreement over the definition of working capital, thanks to the somewhat careless use of the term by the various courts and commissions. Sometimes it means only cash; sometimes it includes materials and supplies. The use of the term "cash working capital" is suggested as a more careful distinction from the combined meaning of that amount of cash and value of materials which should be allowed in a rate case to represent what is necessary for meeting the needs of normal, current operation and maintenance.

Mr. Dittmer traces the allowance of a special amount for working capital in the rate base (the propriety of which has long been recognized) as far back as *Smyth v. Ames*, decided in 1898, in which the U. S. Supreme Court held that "the sum required to meet operating expenses" should be included in the elements to be considered in estimating a utility's "fair value." He concedes that other writers on the subject have not recognized this early derivation of authority for a working capital allowance.

As to the "materials and supplies" portion of the working capital allowance, there has been more or less general agreement that book figures should be used without deduction for accrued depreciation and without considering reproduction cost. This is on the theory that such inventories turn over rapidly so that cost prices would be a fair reflection of their value in the rate base and the factor of obsolescence or depreciation would generally be negligible.

In determining the allowance for cash

working capital, the author finds that utilities are inclined to contend that the retail price of their service (as reported by accounts receivable) should be the basis for making an allowance, while regulatory authorities are more disposed to limit the consideration for the allowance to the expense of rendering the service. Furthermore, regulatory authorities tend to limit cash working capital to money actually paid out.

At this point Mr. Dittmer places mildly surprising stress upon a decision of the U. S. Supreme Court in an appeal involving gas rates of the Los Angeles Gas & Electric Corporation, which was decided in 289 U. S. 287, P.U.R. 1933C, 229. Although the lower Federal court made an interesting ruling on cash working capital in this case by offsetting the utility's credit against its expenses in determining the allowance, the U. S. Supreme Court simply gave this method passing approval by remarking that "the record affords no adequate basis for criticizing the allowance made by the commission for materials and supplies and working capital."

AMATURE consideration of this language would hardly seem to justify Mr. Dittmer's impression that this passage constitutes "the most specific ruling . . . by the United States Supreme Court on the subject of working capital," and may explain why the author was unable to find the case indexed on that point in the leading legal digests. At most, it would seem that the Supreme Court had given the lower court's ruling the benefit of a Scotch verdict.

As far as it goes, however, the Los Angeles Gas & Electric Case does throw noteworthy light upon two points of the controversy in the determination of the working capital allowance cited by Mr. Dittmer. He observed:

Stated differently, it means, in effect, that the United States Supreme Court has sanctioned the computation of working capital as a determination of the amount of money actually invested by the utility in rendering service to its consumers. The decision of the Supreme Court is particularly signifi-

WHAT OTHERS THINK

cant in this case because of the clear statement of the contentions of the commission and the company, and because of the wide difference between the amount claimed by the company and the amount allowed by the commission. The company claimed \$2,333,850, whereas the allowance by the commission, confirmed by the Supreme Court, was only about a quarter of this, *viz.*, \$645,000. There can be little doubt that the finding is in line with other decisions of the Supreme Court as to used and useful property and theoretical and hypothetical elements of claimed value.

The author goes on to point out that the exact method by which working capital allowance should be computed has been the subject of a good deal of experiment and variation in particular cases. The most elaborate method was that employed by the ICC, which consisted of determining accurately all the various items of expenditure for the average weighted period of time during which a railroad company had money invested in operating expenses. In the North Hampton & Bath Railroad Company Case (45 ICC Val. Rep. 797), cited as an example, voluminous details were obtained by means of a questionnaire in the records of the carrier. Later on the ICC dispensed with some of this detail by analyzing the balance sheets and income accounts for a year's operation. This shorter method has been used in bringing up to date valuations previously made of railroads, pipe lines, and other carriers.

As to other forms of utility regulation, the author discloses an impressive record of variation by the different commissions. Sometimes an allowance has been based on a seemingly arbitrary percentage of fixed capital; sometimes a percentage of annual operating expenses (excluding depreciation and taxes) has been used; and sometimes a specified number of days of operating expenses has been used. Where a number of days have been selected, little investigation has been made of the facts pertaining to the particular company's operations.

The author recognizes, however, that state boards have been gradually coming to understand that working capital

is a matter which can be determined from company records. He cites recent cases which have come before the Illinois Commerce Commission in which the commission took the amount claimed by the utility as representing its investment in operating expenses during the interim between monthly payments and subjected it to major adjustments. Mr. Dittmer explains these as follows:

In the first place, since the company operates on a schedule of continuous meter reading and continuous billing throughout the month, the computation should run from the average time of rendering the service to the customer and not from the time when the company begins to incur expenses. Since the company normally bills once a month, that makes a difference of fifteen days and has the effect of reducing the computed investment in operating expenses by approximately \$1,000,000. The second adjustment must be made because the company does not pay the expenses incurred in rendering the service at the same time the service is rendered. The largest single item of expense is for the purchase of natural gas for which the company pays on the twentieth of the following month. Giving effect to this item results in a further reduction of substantially \$1,000,000 in the investment in operating expenses. On other expenses, such as payroll, purchases of coal, etc., a delay was also shown between the time of rendering the service to the customer and the time when the company was required to make payment. Taking these other expenses into account reduces the amount by a further \$500,000, so that of the original \$3,500,000 claimed only about \$1,000,000 is left, exclusive of taxes.

THE author concedes that there is justification in the claim that a utility should be allowed a reasonable amount of working capital in the form of necessary bank balance, but that this requirement may be taken care of in full or in part by funds which the company may be holding against future payment of taxes. He states that in practical application it makes no difference whether taxes are weighted into the average interval or computed separately as an offset against claimed bank balances.

In conclusion, Mr. Dittmer agrees that for materials and supplies book figures are generally acceptable for computing working capital, but that the amount of

PUBLIC UTILITIES FORTNIGHTLY



"LADY, WE FOUND THAT LEAK IN YOUR CELLAR, BUT IT WASN'T THE GAS PIPES"

the allowance should be based on "an actual analysis of the company's operations and will include as a principal item the company's actual investment in operating expenses for the interval between payment and reimbursement." Prepayments representing expenses paid in advance may be weighted into the average or allowed for separately. Working capi-

tal for merchandising should be allowed in those jurisdictions where merchandising is regarded as part of the utility business.

—F. X. W.

WORKING CAPITAL AS AN ELEMENT OF FAIR VALUE IN RATE MAKING. By William A. Dittmer. *The Journal of Land & Public Utility Economics*. August, 1939.

An Appraisal of the Federal Pump-priming Movement

ONE result of the outbreak of European hostilities is likely to be the diminution of the chances of the pump-

priming advocates to come back into congressional favor in the near future. This development is, of course, more in the

WHAT OTHERS THINK

nature of a *coup de grâce*, in view of the drastic curtailment made, at the last regular session of Congress, in such Federal spending programs as the PWA and the WPA, and its refusal to approve that sugar-coated variety of the same brand of legislation known as the "splending bill."

Accordingly, this is a good time to analyze the results to date of Federal spending. It was probably in just such a now-it-can-be-told spirit that J. Kerwin Williams (Ph.D.) wrote his volume, "Grants in Aid under the Public Works Administration," recently released by the Columbia University Press.

As the title implies, Dr. Williams confines his analysis to the PWA counter of the Federal hand-out system which has become so active during the New Deal. Unfortunately, this single subject cannot be completely and satisfactorily covered, even in a perfunctory fashion, within the limits of a single volume. The subject naturally seems to fall into two parts: (1) a study of what was actually done, including the statutory background, the technique of organization and administration, and statistical results; (2) a more philosophical examination and appraisal of the theory of public works spending from the social and political angles, including long-range consideration of such factors as unemployment, regional planning, Federal-state-local relations, and so forth.

An author who attempted to cover both fields, even though admitting the propriety of the segregation, would have a difficult task. Interpretation and theory would almost inevitably run over into the province of factual reporting, thereby clouding the latter with controversy.

Dr. Williams has wisely refrained in his volume from flights into the realm of controversy over the spending theory. "No attempt is made," he says in his preface, "either to justify or to condemn the pump-priming philosophy that led to the creation of PWA; that is the battleground for the economists." In short, Mr. Williams has set out to write a book

which will be of value as a source reference to either side of the argument over the wisdom of it all. In this objective the author has succeeded in the production of a book that is at once readable, fair, and reasonably comprehensive within its physical limitations.

This is no mean achievement because Dr. Williams, for obvious reasons, had to rely on official contacts within PWA for much material that could not very well be obtained elsewhere. Thus, while the writer betrays evident flashes of sympathy with the PWA program, it is a tribute to his critical sense of proportion that he has managed to include some recognition of most of the outstanding difficulties, shifts of policy, and administrative defects which marked the course of the PWA program.

Probably the best example of this is his discussion of the PWA litigation with the private power utilities over grants in aid of municipal power plants (pages 154-159). His inclusion of the text of the so-called "Hunt memorandum," written by Secretary Ickes on January 30, 1935 (page 157), should prove an eye opener even to many who have tried to keep in close touch with this particular phase of the PWA activity. It is obvious from reading these pages that the PWA reversed itself in attempting to exercise any regulatory influence on local electric rates and that, in addition to considerable misunderstanding within the ranks, somebody has been less than frank in the courtrooms over what the interest of the PWA really was in the fixing of local electric rates.

THROUGHOUT the book appear enlightening little nuggets of information (generally presented inconspicuously by way of footnotes) taken from minutes of board meetings and so forth, which have not been widely publicized heretofore. For example, there is the reference (page 111) to a statement made by former Undersecretary of Agriculture Tugwell in February, 1934, to Secretary Ickes, expressing dissatisfaction with the proportion of PWA funds which were being diverted into non-Fed-

PUBLIC UTILITIES FORTNIGHTLY

eral projects. Tugwell said: "I should think you would give up all non-Federal projects." To this Secretary Ickes replied: "My mind is running the other way."

Dr. Williams' development of the subject is very roughly chronological. First, he sketches the forerunners of the PWA, which include the "give-a-job" movement and the creation of RFC under the Hoover administration. Then he reviews the actual PWA legislation and describes the general purpose of the "grant-in-aid" theory of Federal financial assistance as applied to public works. Thereafter in successive chapters he takes up the organization problems of the PWA, the methods of making grants and loans, PWA control over labor and contractors, and the important chapter on relations between PWA and state and local governments, and finally conclusions by the author as to the past and future of the PWA.

As to his conclusions, Dr. Williams exercises the same restraint that characterizes the temper of the book throughout, which is commendable when we realize that this same author, in an article published in the *American Political Science Review* in December, 1936, vigorously championed the doctrine of giving direct grants to cities, against a contrary view that it threatens our Federal system.

THE can be little quarrel with his summary to the effect that the PWA, on the whole and with due con-

sideration for the difficulties which beset the setting up of a new agency to administer an entirely unprecedented governmental policy, has been efficient, honest, and relatively free of politics. Incidents have occurred, of course, such as the Maryland bridge matter, which U. S. Senator Tydings complained about so bitterly during his renomination campaign in 1938, but these exceptions have tended to prove the rule.

The author's statements of facts throughout seem pretty well supported, with the possible exception of his remark (page 249) to the effect that "PWA recommendations for bond and debt legislation were adopted in whole or in part by all but two states." This is certainly misleading, if not inaccurate, but the slip probably results from placing too much reliance upon source reference.

What is needed now is an equally competent and disinterested appraisal of the philosophy behind PWA which will take up the subject in theory at the point where Dr. Williams leaves it in fact. This would be especially desirable in view of the proposals to make PWA, or an agency very much like it, a permanent policy of the Federal government, to absorb the slack of unemployment during periods of stress, and to prepare advance programs for public works at other times.

—M. M.

GRANTS-IN-AID UNDER PUBLIC WORKS ADMINISTRATION. By J. Kerwin Williams. Columbia University Press. New York, N. Y. Sept. 14, 1939. Price \$3.75. 292 pages.

Notes on Recent Publications

THE SUPREME COURT AND TEMPORARY RATE ORDERS. By Robert W. Harbeson and H. M. Olmsted. *The Journal of Land & Public Utility Economics*. August, 1939.

These are two interesting papers analyzing the decision of the U. S. Supreme Court in the so-called "Driscoll Case" (*Driscoll v. Edison Light & P. Co.* [1939] 28 P.U.R.(N.S.) 65). Mr. Olmsted confined himself to a discussion of depreciation which he felt was neglected in the Driscoll decision, while Professor Harbeson dealt

with the general subject of temporary rate-making technique and its relation to the use of the prudent investment theory. However, since the writing of these articles, the Driscoll Case has been somewhat overshadowed by the more forthright opinion of the statutory 3-judge Federal court in the Beaver Valley Water Company Case, in which the question of using prudent investment value in temporary rate making is more likely to be passed upon squarely by the highest court.

The March of Events

Federal Power Units Consolidated

CONSOLIDATION of two government power committees to develop a national power policy based on national defense and peace-time needs was announced on October 14th by President Roosevelt. The merger involved transferring of the work of the National Defense Power Committee, of which Louis Johnson, Assistant Secretary of War, has been chairman, to the National Power Policy Committee, headed by Secretary Ickes, of the Interior Department.

The newly constituted committee will be made up as follows:

Secretary Ickes, chairman; Louis Johnson; Leland Olds, Federal Power Commission; Jerome N. Frank, Securities and Exchange Commission; John Carmody, Federal Works Administrator; Harry Slattery, Rural Electrification Administrator; David E. Lilienthal, Tennessee Valley Authority; and Paul J. Raver, Bonneville Project Administrator, as members.

Outlining his policy in letters to Ickes and Johnson, the President said in part:

"The National Power Policy Committee shall devote itself to the development of a national power policy in the interest of national defense as well as peace-time needs. It shall consider power problems common to the several departments and agencies represented on the committee, with a view to the coordinated development of a consistent Federal power policy.

"It shall deal with the matters of co-operation between the public and private agencies supplying electric power. It shall advise me in matters of national power policy.

"The National Defense Power Committee has completed the major part of its work of estimating the probable power needs of the nation in peace and in war. The National Power Policy Committee should be in a position, therefore, to give its first attention to the immediate concrete steps necessary to assure the meeting of these needs."

Power Pool Suggested

BONNEVILLE Administrator Paul J. Raver disclosed recently that Bonneville engineers were studying a plan which would inter-



connect virtually all major public and private power systems in the Northwest. Principal speaker at a dinner meeting of the American Institute of Mining and Metallurgical Engineers at Portland, Dr. Raver declared that the Columbia river project could not "continue to be an isolated dam." He said:

"It must be linked with the other hydro and steam plants of the region. Such a program will not only assure a more stable and reliable power system, but it will provide millions of dollars worth of additional prime power for industries that seek low-cost electric energy."

The administrator pointed out that metallurgical industries could not locate in the Bonneville region until there is "low-cost power—not merely adequate in quantity, but reliable and dependable—for continuous operation. By hooking Bonneville up with the network of private and public lines of Oregon and Washington, we are extending the influence of low-cost Columbia river power to the far corners of the state."

Dr. Raver admitted that low-cost power alone was not enough to encourage the metallurgical and other heavy industries to come West, that serious freight problems must be solved in terms of the region's needs and resources, and that he felt it his duty to help solve these problems.

Another speaker was Walter W. R. May, director of industrial development for the Portland General Electric Company, who declared that the controlling factor in determining to what extent industries can be brought to or expanded in the area "is whether the savings that can be made through low-cost power at Bonneville or Grand Coulee or through any private or municipal plant will be great enough to offset the additional expense of working the raw materials here and transporting the finished products to markets in the Middle West and East."

Representative Walter M. Pierce, Democrat of Oregon, on October 19th told the House of Representatives that he doubted that private utilities could ever pass on to the consumer the benefits of cheap power generated at the government-owned plant at Bonneville dam. Pierce stated his opinion in a speech replying to what he said were recent editorial attacks by a Portland newspaper against the policies of Dr. Raver. He said the attacks were based upon the ground that Raver had refused to be rushed into signing a contract with the

PUBLIC UTILITIES FORTNIGHTLY

Portland General Electric Company for the sale of a large amount of Bonneville power. Pierce said he did not believe Bonneville power should be sold to a private utility unless resale rates were written into the contract.

SEC Stills Rumor

A STATEMENT regarded in official quarters as a direct intimation that the Securities and Exchange Commission would welcome no changes in its three basic statutes at the coming regular session of Congress was recently sent by Jerome Frank, chairman of the commission, to Jean C. Witter, former president of the Investment Bankers Association.

Mr. Frank's message was said to have been prompted by a published report that the SEC was studying possible changes in the controversial 20-day provision of the Securities Act and the IBA interpretation of that report as indicating possible modification of this statutory provision at SEC instance.

Soon after publication of the report, Mr. Frank received a telegram from Mr. Witter in which he expressed his gratitude over the implication that the SEC might be moving in the direction of modification of the Securities Act. Acting with the unanimous approval of the commission, Mr. Frank replied under date of October 12th that "the commission has not formulated any program for amendment." He added, however, that such reports "appear every now and then and have no foundation other than that, as you know, we are continuously studying the desirability and necessity of statutory revisions of the 1933 act."

He added that the commission was "having its staff make a careful study of the subject of private placements and of other aspects of investment banking," but there was nothing in the message to indicate that the commission would be in the least responsive to requests for modification of the basic statutes.

TVA Held Major Link

VICE Chairman David E. Lilienthal of the Tennessee Valley Authority recently

pointed to the Federal agency's power and navigation programs as major links in the national defense program.

Electric power produced by the TVA system of dams would constitute a rich reservoir from which industry could draw in event of emergency, Lilienthal said in an interview, adding that a shortage already was imminent as business approached a peak in production. He explained that TVA navigation work would relieve pressure from the railroads which must carry the brunt of the transportation burden.

Lilienthal said availability of a "large block of power" to industry is important "because industry is approaching a peak in production now and a shortage in power is not unlikely. In event of a national emergency, the likelihood of such a shortage would be much greater."

St. Lawrence Seaway Development

NEGOTIATIONS between the governments of Canada and the United States on the St. Lawrence seaway development project may be reopened, it was learned recently. The tremendous expansion of Canadian industry due to the war will require a much larger and guaranteed source of hydro power, it was understood. Total water-power resources of the country, developed and undeveloped, are estimated at 43,700,000 horsepower.

The project has been under discussion at various times since 1932. Premier Mitchell F. Hepburn, it was said, had signed his willingness, subject to one or two minor qualifications, to coöperate.

Mexico Surveys Projects

MEXICO's secretary of agriculture, it was learned recently, is gathering all available data on waterfalls throughout the republic to carry on a vast presidential project for the complete electrification of the nation.

President Cardenas' project calls for establishment of light and power plants in all towns, especially in the rural districts.

Alabama

Power Plan Scored

ALDERMAN L. A. LaSala protested at a meeting of the Bessemer city council last month at the action of a majority of the city council in soliciting advice and recommendations from committees to be appointed by civic clubs and other organizations as to the advisability of obtaining electricity from the Alabama Power Company or the TVA for the

electric distribution system now under construction at Bessemer. LaSala said:

"This attempt to secure recommendations from a particular group is merely a subterfuge of the majority of the council to evade the responsibility placed upon them when elected to office.

"To take the recommendations of a selected group of nonelected members of the community, contrary to the wishes of a majority

THE MARCH OF EVENTS

of the people, as expressed in their vote to obtain TVA, is to destroy every shred of democratic principle in our city government and to place in its stead a rule of class guidance."

At a previous meeting the city officials by resolution had requested civic clubs and other

organizations to appoint committees to study the proposal of the Alabama Power Company to supply electricity to the city's electric distribution system instead of the TVA and to make recommendations to the council as to which offer, Alabama Power Company or TVA, was the better proposition.

Arizona

Gets Power Cut

New electric rates for Douglas will result in an estimated saving of \$13,526 annually to consumers in that district, the state corporation commission reported recently. The rates were effective on bills received after October 4th. A basic monthly rate of \$1 was set.

The schedule for residential users starts at

6½ cents per kilowatt hour for the first 30 kilowatt hours, and decreases with increased consumption until a charge of only 2 cents per kilowatt hour is made for all over 180 kilowatt hours.

Similar sliding schedules, starting at 6½ cents per kilowatt hour for the first 100 kilowatt hours, were approved for commercial light and commercial power consumers.

California

Power Airing Pledged

LEGISLATION to provide for public distribution of power from the Shasta dam unit of the Central valley project, defeated at the last session of the state legislature, again will be before the assembly and senate at the next legislative session. This was promised recently by Paul Peek, speaker of the assembly and chairman of the state Democratic central committee.

Peek said the full development of the Central valley project, including public facilities for the distribution of power, is one of the planks in the Democratic platform and a policy to which Governor Olson is fully committed. He pointed out the Pierovich bill, intended to accomplish this purpose, was killed in the assembly during the closing days of the last session.

The assembly speaker urged support of the Atkinson oil control act, approved by the last legislature, which is on the November special election ballot for a referendum vote.

Reduction Details Announced

DETAILS of the reduction of \$100,000 in gas rates and \$80,000 in electric rates of Coast Counties Gas & Electric Company, effective on October 15th, were announced by the state railroad commission last month, revealing substantial savings to customers of the company.

Domestic electric customers which the company serves in portions of Santa Cruz, Santa Clara, San Benito, and Monterey counties will receive savings of \$49,800 in their bills; com-

mercial electric customers will save \$13,400, while the remainder of the electric reduction was divided between agricultural power, street lighting, general power, and certain miscellaneous charges.

Domestic and commercial gas customers in the coast division of the company, which takes in parts of Contra Costa, Merced, Monterey, San Benito, Santa Clara, and Santa Cruz counties will receive \$80,000 in reduced rates, while the so-called west side territory taking in Kern county will get the remainder of the gas reduction.

Scrip Banned for Gas Bills

IN a notice accompanying current bills, the Southern California Gas Company on October 12th began notifying its 800,000 customers that it could not accept ham-and-eggs pension warrants in payment of gas or other bills due the company. The company made known its stand in the following statement:

"Southern California Gas Company is required to pay all of its obligations, such as wages, purchases of gas, purchases of materials and supplies, and bond interest in lawful money of the United States. This being so the company cannot accept, in payment of gas or other bills due the company, warrants (commonly known as ham-and-eggs warrants), if issued under the proposed California State Retirement Life Payments Act, coming before the California voters on November 7, 1939."

The company's consumers reside in cities and counties in the five southern counties.

The Southern Counties Gas Company,

NOV. 9, 1939

PUBLIC UTILITIES FORTNIGHTLY

covering another great bloc of residents in the area, already had taken steps to advise its customers that it could not accept the warrants in payment of bills due the company.

The publicly owned utilities are required

under the terms of the act to accept the warrants in payment of bills, although there is expected to be a legal fight on that point if the measure should be passed by the California voters.

Colorado

Municipal Power Issue

MONTROSE was assured of a doubly spirited city election November 7th when the Better City Government party filed the acceptances on October 20th of three of its candidates for places on the 5-member city council. They would oppose three incumbents, who were nominated and certified to the city clerk early last month by the Citizens Progressive party.

Nominees of the Better Government faction were Randolph Kittleson, former mayor; James A. Dutcher, a bank cashier; and Curtis J. Moberly, gasoline distributor. Dutcher and Moberly were nominated for the two 4-year vacancies and would oppose Frank M. Brown and Leslie R. Dilworth, incumbents and nominees of the Citizens Progressive faction identified with a proposal to amend the charter

and provide for immediate purchase and installation of a municipal electric light and power plant. The present council, with the exception of one member, Dr. R. B. Spong, has vigorously supported public ownership.

Two special elections have failed to authorize the council to enter the electric business, while the Western Colorado Power Company has been unable to secure a renewal of its franchise.

The Better City Government candidates, in announcing their entrance into the campaign, have asked the voters to reject the proposed municipal light and power proposition, which would give the council authority to spend an unlimited sum for the plant and its operation. They contend the city charter as it now stands permits such municipal ownership but gives the electors a check on the sum to be expended and the manner in which it can be spent.

Connecticut

FPC Orders Public Hearing

THE Federal Power Commission on October 18th ordered a public hearing on November 20th to determine whether the Hartford Electric Light Company falls within the jurisdiction of that agency. The procedure grew out of refusal by the Hartford Company to file certain accounting data requested by the commission. Last July 14th the commission ordered the utility to show cause why it had not reported this information.

In replies dated October 14th and October 5th, the company argued it was not subject to jurisdiction of the FPC.

The company based this contention upon the ground that it does not own or operate facilities for the transportation of electric energy in interstate commerce, that it does not sell electric energy at wholesale in interstate commerce, and that therefore it is not a public utility subject to the authority of the commission, as defined by the Federal Power Act. The public hearing will be held in Washington.

Michigan

Dearborn Case Included

DEARBORN'S request for lower gas rates was to be consolidated with the hearing on Detroit rates charged by the Michigan Consolidated Gas Company, the state commission decided recently. Attorneys for Highland Park and Hamtramck also have entered appearances in the case.

Gas company attorneys said they would file a bill of exceptions to the order. Dearborn officials said it would cost their city a large

sum to prosecute a separate action involving their rates.

On the stand last month, John W. Batten, company general manager, continued his description of the magnitude of the job of changing over all Detroit gas appliances for natural gas in 1936. Prosecuting Attorney Duncan C. McCrea has questioned the company's payment of \$2,800,000 for the change-over work.

James W. Williams, assistant attorney general, on October 19th ruled that whatever gas

THE MARCH OF EVENTS

rate the state public service commission orders the Michigan Consolidated to put into effect at the conclusion of the rate hearing will apply in all parts of the Detroit area.

Gas company attorneys raised the question,

expressing fear that after a new Detroit rate is set, suburban cities would come in and ask separate hearings. John J. O'Hara, commission chairman, estimated the hearing would last until next summer.

Missouri

Tax Assessment Raised

THE assessment of the Union Electric Company of Missouri for 1939 taxes was increased 29 per cent over the 1938 valuation by a 4-to-1 vote of the state board of equalization last month. The increase was \$8,867,671, from \$30,307,329 to \$39,175,000.

The majority of the property thus taxed is in St. Louis, while the balance will be distributed proportionately among the various counties in which the company operates. Thus, it was said, the addition to the company's tax bill could not readily be determined, but doubtless would be in six figures.

Voting for the increase were Governor Lloyd C. Stark, Attorney General Roy Mc-

Kittrick, who made the motion for it; Secretary of State Dwight H. Brown; and State Auditor Forrest Smith. The single negative vote was by State Treasurer Robert W. Winn.

The attorney general's motion declared the change was "in order to equalize the assessment of Union Electric with the valuations fixed on all other utilities." He said Union Electric "has been one of the lowest taxed utilities in the state."

An assessment of \$36,336,292, constituting a 19 per cent increase, had been recommended by the state tax commission, fact-finding body for the board. This figure was based on specific property items, plus a new charge of \$3,303,248 added by the commission for value of franchises.

Nebraska

Against Power Board

C. H. FISHER, chairman of the Platte Valley Public Power and Irrigation District's power committee, recently stated that he was opposed to formation of a governor-appointed state power commission, "because it would take control from the people."

Dr. C. E. McNeill, University of Nebraska economist, who with a colleague conducted a study of the state's public power picture, recommended a commission to coordinate activities of the districts. Chairman Fisher asserted:

"Now that the hydroelectric districts are proving they can bring cheap electricity to the state, they would take the control from the people and place it in the hands of a political machine. All three districts are taking the lead in bringing cheaper electricity to the state."

Fisher said the recently adopted plan of the three major districts to form an advisory board and employ a directing manager "will serve the same purpose as a governor-appointed commission, and at the same time keep the districts out of politics."

District Absorbs Utility

THE Consumers Public Power District on October 16th assumed operation of the Columbus division of the Northwestern Public

Service Company, completing the first acquisition of a private power firm's properties by one of the major federally financed hydroelectric projects in Nebraska.

Organized by the Loup River Public Power District for the express purpose of acquiring the private power company's properties, the Consumers District is operating under a lease-purchase contract signed August 10th and approved in effect by a franchise election at Columbus September 25th. The properties were purchased for \$1,209,000, to be paid off at a rate of \$7,800 per month over a period of about twenty-two years.

New light rates for both commercial and residential users, approximating a 10 per cent reduction, went into effect immediately. The district includes distribution systems at Columbus, Silver Creek, Monroe, Tarnov, and Platte Center, selling at retail, and delivery of power to Duncan and Richland at wholesale.

James L. Rich, of Columbus, was appointed district manager. The entire division force of twenty-five employees went to work for the Consumers District.

Consumers District will make installment payments on the purchase price to Middle West Utilities Corporation, Chicago, the holding company which formerly controlled the system. When connection is made, the district will be supplied with hydro power from the Loup plant.

PUBLIC UTILITIES FORTNIGHTLY

North Carolina

REA Head Reports

A REPORT released recently by Dudley Bagley, director of the North Carolina Rural Electrification Authority, shows that rural power lines built, under construction, or authorized since the REA began operations July 1, 1935, through October 17, 1939, total 15,876.71 miles. These lines, built at an estimated total cost of \$15,152,098.76, serve 79,939 customers in the 100 counties of the state.

Of the 11,788.04 miles already built, 7,929.94 miles were built by public utilities, 1,118.00 miles by municipalities, and 2,740.10 by the Rural Electrification Administration. Now under construction are another 255.30 miles for

public utilities, 11 miles for municipalities, and 1,577 REA-sponsored miles. In addition, there are 2,245.35 miles authorized to be constructed.

Estimated total cost of the 8,438.41 miles of line built by public utilities was \$8,325,305.27; cost of the 1,157.60 miles built by municipalities was \$840,343.49; and cost of the 6,280.70 REA-built miles was \$5,986,450. Average cost per mile for all the lines was slightly under \$1,000.

The 79,939 customers served by these lines are distributed as follows: 47,392 served by public utilities; 6,936 served by municipalities; and 25,611 served by Rural Electrification Administration projects.

Ohio

Utility Appeals Rate

THE Cleveland Electric Illuminating Company last month asked the state public utilities commission to set aside a 3-year Cleveland electric rate ordinance fixing a top charge of 3.6 cents per kilowatt hour.

Both the city and company have estimated that the new rate would cut the company's revenue \$1,700,000 per year.

The company will collect the 4-cent rate under bond pending a decision by the state commission.

Municipal Light Rates Lower

THE new residential light rate schedule for the municipal light plant will be approximately 15 per cent lower than the residential rate offered recently by the Columbus & Southern Ohio Electric Company and ordered on the November 7th ballot by the Columbus city council, it was revealed recently.

Residential rates of the light plant are more than 10 per cent higher than they will be when the new rates are submitted to council, but there will be a difference of at least 15 per cent on the city's schedule and that of the private utility, it was said. Service Director Llewellyn Lewis revealed that the new ordinance setting up a new rate schedule for the municipal plant would not be submitted to council until after the November election.

Since the commercial and industrial rates of the private utility were not included in the rate ordinance passed by council some time ago, it was believed unlikely that the commercial and industrial rates of the municipal plant would be touched, since they are considerably below the rates of the company.

There are approximately 6,000 consumers

using municipal light plant current, it was said.

Rate Case to High Court

CITING an impressive series of errors, counsel for the city of Columbus and the Ohio Fuel Gas Company carried to the state supreme court on October 16th their appeals from the 56.22-cent gas rate fixed by the state utilities commission. The move threw into the lap of the state's highest tribunal the ancient controversy arising out of the electorate's approval in November, 1934, of the 48-cent gas rate ordinance which has since expired.

Raising the question of the utility commission's right to fix a rate higher than that approved by the voters, counsel for the city, James W. Huffman and John L. Davies, enumerated no less than 100 grounds of error on which they based their appeal, while the company counsel, Freeman T. Eagleson, countered with a list of 78 grounds of error, and contended the commission's order was "unlawful and unreasonable."

Since the state commission's order of August 17th, the company has been collecting the higher rate under bond, pending final determination of the litigation, from the 60,000 customers of the Columbus Gas & Fuel Company, who have been paying 55 cents, and from the 20,000 customers of the former Federal Gas & Fuel Company, since merged into the present organization.

Referring to the commission's decision fixing a higher rate, the company asserted that the commission was in error in that it violated the state Constitution by "purporting to substitute legislatively natural gas rates for rates fixed in an ordinance of the city of Columbus."

THE MARCH OF EVENTS

Touching upon the matter of dilution of natural gas, the city further asserted that the commission erred when it refused to admit to the case record all testimony and exhibits relating to the question of dilution, and shifted the burden of proof of dilution from the company to the city.

Gas Company Files Appeal

THE East Ohio Gas Company recently filed a petition in the United States Circuit Court of Appeals for the Sixth Circuit at Cincinnati, challenging the Federal Power Commission's order of February 14, 1939, which identified the East Ohio Gas Company as a natural gas company within the meaning of the Natural Gas Act.

The commission further ordered the gas company to file an inventory and a statement of the original cost of its property used in the transportation of natural gas from the Ohio river to Cleveland.

The order came out of a rate controversy

with the city of Cleveland in 1938. The gas company challenged the finding that it is a "natural gas company" subject to the Federal Power Commission under the Natural Gas Act, and claimed the order was void because the commission did not give the company an opportunity to argue either on the issue of the commission's jurisdiction, or on the issue of the unconstitutional character of the order.

This was said to be the first opportunity presented to any court to consider the scope and purpose of the Natural Gas Act and the powers it confers on the Federal Power Commission.

The gas company stated that it was important to the gas industry and to state commissions that it be promptly decided whether the powers claimed by the Federal Power Commission have been granted or withheld and whether investigations of a character so long solely conducted by state commissions are now to be duplicated by a Federal commission.

Oklahoma

Cold to Gas Purchase

A PROPOSAL for a bond issue enabling Oklahoma City to buy the Oklahoma Natural Gas Company aroused little immediate enthusiasm last month at the city hall where reaction seemed to be that the water problem must be solved first.

The proposal was put forth by Albert McRill, attorney and former city manager, who said he had not been consulted about the plan

but intended to study the franchise under which the city may exercise an option at 5-year intervals in the 25-year term of the franchise to purchase the gas company facilities.

McRill pointed out the 5-year period elapses next May and in the meantime the proposition should receive serious consideration. He said he had no plans to present the proposal immediately to the city officials and had not conferred with Oklahoma Natural Gas Company officials.

Oregon

Light Rates Cut

THE Cascade Locks city council last month voted to put into effect November 15th drastic electric light rate reductions in its newly acquired municipally owned city light department, as recommended by rate experts of the Bonneville administration.

The new rate will be: First 50 kilowatt hours, 4 cents; next 50, 2 cents; next 200, 1 cent; next 900, one-half cent; over 1,200, one-third cent. The old rate provided: First 40 kilowatt hours, 7 cents; next 260, 3 cents; all over 300, 2 cents. Commenting on the reduction, Mayor J. E. Manchester said:

"Figured roughly, the rates we have established upon advice and recommendation of the Bonneville administration mean a reduction of 43 per cent in the first 40 kilowatts used, a 35 per cent reduction if the consumer uses

100 kilowatt hours, and 47 per cent if 200 kilowatt hours are used, as compared to old rate charges."

PUD Petitions

FINAL petitions asking the state hydroelectric commission to call a special election for creation of the proposed Lane County Peoples Utility District were filed at Salem last month. The date was subsequently set for early December.

The district would include virtually all of the agricultural area of Lane county together with the municipalities of Coburg, Cottage Grove, Creswell, Junction City, and Springfield.

The assessed valuation is \$16,880,000 and the population 27,000.

Petitions seeking creation of the proposed

PUBLIC UTILITIES FORTNIGHTLY

Coos County Peoples Utility District were approved by the attorney general early last month, the state hydroelectric commission announced. C. E. Stricklin, chairman of the commission, said the public hearing to discuss feasibility of the project probably would be held early in November.

The district would include virtually all of Coos county with the exception of the city of Bandon.

Petitions seeking creation of the Nehalem Basin People's Utility District were filed with the state hydroelectric commission on October 18th. The proposed project is located in Columbia and Washington counties and would

contain approximately 82 square miles. The assessed valuation of property within the proposed district is \$1,425,000 and the population 6,000.

A sponsoring committee of about 35 representative citizens of the coast district has been elected as one of the primary moves toward forming the proposed Lincoln County Public Utility District, according to Thomas McClellan, chairman of the Pomona grange's public power committee. As soon as the required signatures are secured, petitions will be turned over to the state hydroelectric commission and a public hearing held in the district.



South Carolina

Governor Reports Progress

GOVERNOR Burnet R. Maybank recently announced that "progress" was being made in his negotiations, in behalf of the Santee-Cooper Authority, for the proposed purchase by the authority of the properties of the South Carolina Electric & Gas Company of Columbia, and the Lexington Water Power Company.

The governor's announcement was made after a long conference in his office. Others present were Ralph D. Jennison, of New York, an officer of the Associated Gas & Electric Company, which owns the two utilities involved; Norman H. Coit, general manager of the electric and gas company at Columbia; B. W. Thoron, of Washington, director of the finance division of the PWA; William Youngman, of Washington, counsel for the National Power Policy Committee; F. D. Nims, an engineer with the Santee-Cooper; and Stephen Darlington, engineer

with the Public Works Administration on the Santee project.

In January, Governor Maybank announced that he had been authorized by the board of directors of the state public service authority to open negotiations not only with these two companies, but with the South Carolina Power Company, of Charleston, with a view to purchasing them.

Later the governor, who is chairman of the authority's advisory board and former chairman (prior to becoming governor) of the authority's directorate, disclosed the policy the authority would adopt in the event the private utilities' properties could be bought by the authority. He said the plan was, once the properties had been obtained, to offer the distribution facilities for sale to municipalities, counties, or cooperatives. These, in turn, would purchase their power from the Santee-Cooper project, the \$40,300,000 hydro development now under construction in the lower part of the state.



Tennessee

Seeks to Acquire System

WITH negotiations with the Tennessee-Kentucky Power Company, and with TVA in Knoxville, the Jellico power committee recently brought into the open its fight for a municipally owned electric power system. Chairman J. H. Cantrell said TVA officials in Knoxville had promised TVA current as soon as Jellico acquires a system.

"We have negotiated with the T-K Power Company, but the company officials displayed an unwillingness to sell to the city. The officials told our committee that they would cut their rates to rock bottom in order to compete with TVA power should it be brought here," Mr. Cantrell said.

Jellico has voted \$50,000 in bonds for purchase or erection of a plant, Cantrell declared, and said "if the present system here refuses to sell to us, then we will erect a municipal system."

Cantrell said Jellico had offered the T-K Power Company \$75,000 for its system. This extends 12 miles from Jellico into Kentucky, to Emlyn, and within 3 miles of Williamsburg, and also includes 3 miles of Tennessee territory. The system serves a population of 4,000, including 1,800 in Jellico.

Nashville Reports Deficit

THE Nashville Power Board, in a preliminary statement of revenues and expendi-

THE MARCH OF EVENTS

tures of Nashville Electric Service from the time it took over TEPCO properties in that city August 16th, through September 30th, recently reported a deficit of \$98,111.74 after deduction of operating costs and fixed charges from operating revenue.

This was attributed to the fact that under the purchase contract with the Tennessee Electric Power Company, a large portion of the revenues collected during this period went to TEPCO while the Nashville Electric Service bore all the costs.

The statement was presented at the second public meeting of the power board and resulted in consideration of whether the board should borrow needed operating funds from

local banks. For the month of September the report of the power board showed that the balance left to provide for working capital was in the red \$18.81.

The Nashville Power Board on October 20th voted unanimously to remove a 15 per cent surcharge on the bills of residential consumers of electricity, thereby giving domestic users the full benefit of basic Tennessee Valley Authority rates, effective November 1st and reflected in bills issued after December 1st. It was estimated the cut would mean savings of approximately \$20,000 a month to consumers. The surcharge will continue to be applied indefinitely to industrial and commercial consumers.

Utah

Doubt Raised on Power Vote

WETHER the Ogden city commission delayed too long in instituting proceedings for a vote November 7th on the proposed \$3,500,000 bond issue for construction of a municipal light and power plant was a question raised last month by City Attorney George S. Barker.

In reply to questions submitted by the city recorder, Mr. Barker gave it as his opinion that "arguments supporting municipal measures shall be filed with the recorder not less than thirty days before the election at which they are to be voted upon and that opposing arguments shall be filed not less than twenty days before the election." He pointed out that the 30-day time limit expired October 7th.

Mayor H. W. Peery and Commissioner William J. Rackham, on the other hand, contended that the commission was not bound to follow the procedure outlined by Mr. Barker because the board itself had initiated the proposed power vote by passage of a special ordinance. Mr. Barker in turn called the commission's attention to the fact that a group of sponsors recently applied for referendum petitions and that their action would have the effect of demanding a vote. Hence, he believed printing and distribution of publicity pamphlets was essential if the validity of the election was not to be questioned.

The city commission on October 13th approved a notice of election submitting to the voters on November 7th the proposal to issue revenue bonds for construction of the municipal plant. Commissioner E. T. Saunders refused to join with Mayor Peery and Commissioner Rackham in adopting the notice in view of the fact that the power plant ordinance which was passed September 28th had

never been submitted to the city attorney for study.

Power Probe Sought

CITING what they termed "pernicious activities of the Utah Power & Light Company designed to break down local self-government in communities of the intermountain region," a group of Utah city officials last month sent a letter to Senator Elbert D. Thomas asking a Senate Civil Liberties Committee investigation of the company's "domination" in Utah.

The letter was signed by Mayors Mark Anderson of Provo; G. R. Berger of Murray; John N. Whimpey of Lehi; and J. C. Stocks of Bountiful; and by J. D. Brown, Ogden city engineer. The letter read in part:

"...The menace to representative government has become so great and so utterly intolerable that we petition you to send your committee investigators into Utah forthwith, to reassert supremacy of constituted government and to bring to the people accurate and immediate information now unavailable."

A meeting of heads of all municipalities "contemplating erection of, or which are now constructing, power plants" was called for October 18th at the Murray city hall, where a municipal organization was to be perfected.

In advising Mayor Anderson that the Senate Civil Liberties Committee, for reasons he had previously explained, could not undertake an investigation at this time, Senator Thomas informed the mayor that there was a civil liberties division in the Department of Justice, set up as the result of the work of the Senate committee. Senator Thomas suggested that the mayors forward their complaint direct to the attorney general, or through District Attorney Dan B. Shields.



The Latest Utility Rulings

Expenditures to Attract and Hold Large Gas Consumers

HIGHER rates for gas were authorized by the Massachusetts Department of Public Utilities in a case where the department gave special consideration to new business expenses, merchandising expense, and competitive rates. A steady decline in earnings had resulted from a marked decrease in gas consumption by an increasingly large number of individual customers, the severity of competition with unregulated fuels, and increased expenses attributable largely to additional taxation.

A public utility company which has surrendered the right enjoyed by private business enterprises to fix rates and prices subject only to the restrictions of competition and sound business judgment, said the department, is entitled to compensation based upon a fair and reasonable return on the value of the investment. It was pointed out that there is a danger in rate regulation which is so closely restricted as ultimately to raise the question of confiscation. The commission said:

It suffices to say that the recent history of the gas industry unhappily does not encourage an optimistic view of the future. And while it has not reached the estate of the street railways and railroads which in many instances have either attained or are asking for some form of public subsidy, a pursuance of the present trend of earnings may bring it to the same threshold.

The department said that it had long observed the rule that expense incident to the sale of appliances by a utility company must not be permitted to constitute a burden upon the ratepayers and that any loss incurred by such operations should be added to the net earnings of the company in computing a reasonable rate of return. A number of items of

new business expense, in the opinion of the commission, should have been charged to the merchandising and jobbing account.

It was said to be permissible for the company to do all it reasonably could to attract and hold customers whose consumption of gas is sufficient in quantity and continuity of use to enable it profitably to carry on its operations. This verges closely upon the question of management, with which functions, it was said, the department can have no active concern. Still a utility company seeking to increase its revenues through higher rates must bear the burden to justify such extraordinary expenditures before the department will accept them as prudently made. On this point the commission continued:

We apprehend that a large part of the company's new business expense is directed toward increasing the use of gas for space and hot water heating from which the company derives a lower return per thousand cubic feet of consumption than it receives from the average customer. Theoretically, at least, such expenditures may be justified on the ground that they will redound ultimately to the benefit of the ratepayer by promoting a greater use and sale of the commodity upon profitable terms. But we must not lose sight of the fact that the object of such sales promotion is to help the stockholder in the first instance and he should be required to share in whatever expenses are involved in a period like the present when the additional income received from new business appears to be small by comparison with the amounts spent to obtain it.

The department emphasized its view that it is unwise to interfere with managerial discretion where the purpose is to establish competitive rates unless it appears that such rates effectively throw a

THE LATEST UTILITY RULINGS

burden upon customers served on higher rates. *Re Boston Consolidated Gas Co.* (D.P.U. 5744, 5741, 5748, 5749, 5752, 5753).



Manufacturing Company Cannot Legally Submeter Electricity

THE question arose in a case before the New York commission, relating to a prohibition against submetering, whether a manufacturing company could submeter electricity to a cotenant of a real estate company. The commission ruled that since one company was not a tenant of the other, submetering was illegal.

Under the New York law, by the sale of electricity to a consumer who is not a tenant, a company becomes an "electric corporation" subject to the jurisdiction of the commission. No electric corporation can begin the construction of an electric plant or enter upon the business of operation until it has secured permission and approval of the public service commission. Since the company submetering the current had not secured the necessary approval and consent, it was held that it could not legally distribute electricity.

The proceeding arose in connection with a special provision in the general commercial and power rate schedules of the company prohibiting the resale, submetering, or furnishing for a separate charge, except for use in conducting an enterprise "which is an integral part of the customer's business." The commission, after discussing the operation of the rule in the case of this utility, concluded:

Whether a schedule of rates and charges which contains a provision prohibiting the resale of electricity by the consumer is illegal is dependent upon the facts established in each case. If upon the facts established it is unjust, unreasonable, unjustly discriminatory, or unduly preferential, then it is illegal. There are no facts established in this case from which to reach such a conclusion.

Re Central Hudson Gas & Electric Corp. (Case No. 9933).



Contract for Wholesale Service Can Be Terminated Without Commission Authority

AN agreement between a city which operates a water system and a privately owned water utility, operating in separate fields of service, by which the city agrees to sell water to the private company for an indefinite period, may, after reasonable notice, be terminated by either party. After the date when such termination becomes effective, service may be discontinued. This is the ruling of the West Virginia Supreme Court of Appeals in a case where the commission had denied a city the right to terminate such an agreement and to discontinue service.

The furnishing of a wholesale supply by the municipal plant to the water com-

pany had started in 1927 when the company needed an additional source of good water. Later a dispute arose as to the rate which the city might charge, and then, in a proceeding before the commission, the city stated its desire to discontinue service under its contract and asked authority to do so.

It was conceded that such service might not be discontinued nor the contract terminated except upon reasonable notice, but it was contended that the contract, being for an indefinite period, could be terminated by either party upon reasonable notice and without any showing of cause for such action. The court, in sustaining this contention, declared

PUBLIC UTILITIES FORTNIGHTLY

that this was a contract confined to the two utilities and did not extend to the public served by each. As to the contract, they acted in the same capacity as if the business in which they were engaged was not affected by a public interest, and was governed by the same rules of law. They had not made the public parties to the contract.

Each utility, said the court, had a preferential right within the territory which it undertook to serve. The city under its charter and the water company under its franchise had undertaken to furnish water within a particular territory, and they were under obligation to serve customers in that territory. But inasmuch as neither could encroach upon the territory of the other, neither could

call upon the other to perform in whole or in part any of the services which it had undertaken to provide. The right to service depended entirely upon the contract. The court, after holding that the commission had no power to require one utility to furnish service to another, continued:

If such power were conceded to it, then the property of one utility might at any time, under an order of the commission, be diverted to the performance of the service of another, and, sometimes, competing, utility. The property of a municipal water plant is private property within the provisions of the Constitution, which provide against the taking of such property without due process of law.

Benwood-McMechen Water Co. v. City of Wheeling, 4 S. E. (2d) 300.



Right to Intervene in Commission Proceeding

THE burdensomeness of extensive hearings before regulatory bodies is recognized by the Federal Communications Commission in dealing with the question of intervention in proceedings before it. The commission's former rule was to permit any person to intervene in a hearing if his petition disclosed "a substantial interest in the subject matter." Recently the rule was changed to provide that a petitioner must set forth not only his interest in the proceeding but also "the facts on which the petitioner bases his claim that his intervention will be in the public interest."

Commissioner Payne, in denying intervention and in denying a motion to enlarge the issues on an application for a construction permit to erect a re-broadcast station, said that the underlying purpose of the commission in adopting its present rule was to correct a practice which had become prevalent under the prior rule of the commission. The standard under that rule, he said, was so broad and the commission's practice under it was so loose that intervention in hearings came to be almost a matter lying in the exclusive discretion of persons seeking to become parties to

commission proceedings. He continued:

The experience of the commission during the past few years clearly demonstrated that the participation of parties other than the applicant in broadcast proceedings in a great many cases resulted in unnecessarily long delays and expense to both the commission and applicants without any compensating public benefit. In many cases the major function served by intervenors was to impede the progress of the hearing, increase the size of the record, confuse the issues, and pile up costs to the applicant and to the commission through the introduction of cumulative evidence, unnecessary cross-examination, dilatory motions, requests for oral argument, and other devices designed to prevent expeditious disposal of commission business.

The underlying purpose of the present rule is to limit participation in proceedings, particularly on broadcast applications, to those persons whose participation will be of assistance to the commission in carrying out its statutory functions.

It was ruled that without a proper showing of the type of evidence proposed to be adduced and the facts expected to be proved thereby the commission would not be justified in permitting intervention.

Similarly, on the question of the enlargement of issues it was said that good

THE LATEST UTILITY RULINGS

administration, both from the theoretical and the practical standpoint, requires that unduly long and expensive hearings should be avoided. The commission should not burden itself or the applicant by the injection in a hearing of issues concerning which the commission has already satisfied itself. It is incumbent upon any person requesting the injection of new issues in a hearing to show not

only that the issues which he proposes to have the commission add are proper matters for the commission to consider, and that there is a basis for believing that the commission will be required to deny the application on the new grounds alleged, but also that the proposed new issue should be heard at the hearing already set rather than at a later time. *Re Hazelwood, Inc.* (Docket No. 5698).



No Service Denial to Enforce Payment for Fire Protection

A WATER company cannot discontinue fire protection service to a municipality upon the municipality's failure to pay for the service rendered, the Pennsylvania commission held in dismissing an application for approval of the discontinuance of such service.

The commission admitted that a public utility is authorized by the public utility law to discontinue service to a patron where the patron refuses to pay for service rendered. The legislative reason for such a provision was stated by the commission as follows:

The legislative reason is clear. No utility should be required to continue service to patrons who refuse to pay for such service when the amount of money involved would entail a larger expenditure for collection through courts of law. The average domestic or residential water, electric, or gas bill is less than \$10. It certainly would not be wise for the legislature to compel a utility to render service to a customer who refused to pay a bill in that amount, if collection

of the bill through legal channels would cost more than \$10 by way of attorney's fees and ordinary costs of litigation.

This reasoning, the commission said, does not apply to the law relating to municipal corporations, since the ordinary bill of a municipality for service rendered by a public utility is much larger in amount than that of a residential patron and it would be invariably in excess of the cost of collection. In conclusion, the commission stated:

There is another reason which compels the commission to dismiss the petition in this case. Fire protection is one benefit which is expected to be derived from a municipal government. Failure to provide adequate fire protection is a failure of government itself. If necessary in an emergency, the police power will permit government to commandeer facilities for the protection of its citizens from fire, flood, or other public disasters.

Re Anthracite Water Co. (Application Docket No. 53771).



Segregation Required to Fix Municipal Plant Rates for Outside Service

An order of the Pennsylvania commission fixing rates for municipal plant service to water consumers outside of a municipality was reversed on the ground that the commission had improperly taken the position that it could require the municipality to treat the consumers outside the borough as if the

whole plant was that of a private water company and make no segregation of consumers outside the borough for rate-making purposes. [For commission decision, see 27 P.U.R.(N.S.) 305.]

The Pennsylvania commission has no power to regulate rates for municipal plant service within a borough's corpo-

PUBLIC UTILITIES FORTNIGHTLY

rate limits. Its right to regulate is restricted to service furnished beyond corporate limits. The court, after discussing the principles involved in municipal plant rate making, made the following statement:

It follows from these principles that a municipality may discriminate between its consumers within its limits and those without; that while it is entitled to charge rates that will return a fair profit based on the present fair value of all its property used and useful in the public service, it may forego such profit as respects its consumers within its limits and demand it of its consumers outside its limits; that in arriving at the fair value of its property for the purpose of fixing just and reasonable rates to its consumers within the city, the value of the property outside the city or borough must be segregated and deducted from the value of the entire plant, and the value of the property within the city thus be ascertained in fixing the fair and reasonable rates to be charged for water within city limits;

and that the rates to be charged consumers outside the city must cover a fair return on the property thus devoted to the public service outside city limits plus a fair proportion of the value, cost, and expense of the plant within the city; and that no part of the burden of furnishing water to consumers outside the city can properly be placed on its citizens and consumers within city limits.

The commission, in arriving at its decision, had allowed an annual depreciation charge based on the 4 per cent sinking-fund method. The court said that it need not dwell on this charge in arriving at its decision but that the charge was too small, since a single small borough does not have the opportunity to invest small sums at 4 per cent interest compounded. A 2 per cent rate, it was said, would be nearer reality. *Borough of Ambridge v. Pennsylvania Public Utility Commission*.



Other Important Rulings

THE U. S. Court of Appeals for the District of Columbia held that in a proceeding by two applicants for a license to construct a radio station at the same location, the taking of depositions by one applicant before a notary public without notice to the other applicant is basis for a reviewing court to set aside the FCC order granting one permit and not the other, if the depositions are material. *Stuart v. Federal Communications Commission*, 105 F. (2d) 788.

The Pennsylvania commission, in denying an application for approval of additional motor carrier operations, declared that a motor carrier service that is not self-supporting, that is not necessary for the accommodation of the general public because of the availability of other lower fare services, and that results only in diverting a few riders from competing carriers has no economic justification. *Re Pittsburgh Motor Coach Co. (Application Docket No. 12430)*.

The Colorado commission held that it has the duty to insure continuance of a line haul common carrier service for the benefit of the community as a whole when many of the patrons of the line might be small shippers who could not arrange for contract carrier service. *Re Stroh et al. (Application No. 3504-PP-B, Decision No. 13858)*.

The supreme court of Florida ruled that the Motor Transportation Act does not provide that the use of a motor vehicle in transportation "for hire" must be the principal work done by the carrier for the owner of the goods hauled, where one performs under contract with the transportation of property as a necessary incident to the performance thereof, nor does it matter under such act whether the compensation received for the actual hauling is greater or less than that received for the other work under the contract. *Travis et al. v. Fry*, 190 So. 793.

NOTE.—The cases above referred to, where decided by courts or regulatory commissions, will be published in full or abstracted in *Public Utilities Reports*.

PREPRINTED FROM

Public Utilities Reports

COMPRISING THE DECISIONS, ORDERS, AND
RECOMMENDATIONS OF COURTS AND COMMISSIONS



VOLUME 30 P.U.R.(N.S.)

NUMBER 3

Points of Special Interest

SUBJECT	PAGE
Regulation of radio broadcasting	129
Nature and operation of radio broadcasting	129
Discussion of laws governing radio	129
Commission jurisdiction over electric coöperative association	173
Declaratory judgments	173
Submetering prohibition in electric rate schedule	181
Status of electric coöperative association	185, 189
Commission jurisdiction over taxicabs	188
Commission jurisdiction over obstruction of streams	191

Q These reports are published annually in five bound volumes, with an Annual Digest. The volumes are \$6.00 each; the Annual Digest \$5.00. A year's subscription to PUBLIC UTILITIES FORTNIGHTLY, when taken in combination with a subscription to the Reports, is \$10.00.

Titles and Index

TITLES

Bryan, Re	(N.D.) 188
Columbia Broadcasting System, Com. ex rel. State Corp. Commission v.	(Va.) 129
Consolidated Edison Co., Browning v.	(N.Y.) 181
Economy Cab Co., Re	(N.D.) 188
Garkane Power Co., Re	(Utah) 185
Inland Empire Rural Electrification v. Department of Public Service	(Wash.Sup.Ct.) 173
Moon Lake Electric Asso., Re	(Utah) 189
Pittsburgh & S. R. Co., Re	(Pa.) 191



INDEX

Interstate commerce—radio broadcasting, 129.	Public utilities—articles of incorporation, 189; status of coöperative association, 173, 185, 189; taxicabs, 188; tests of status, 173, 189.
Judgment—declaratory judgment, 173.	Regulation—limited to public business, 173.
Monopoly and competition—inadequacy of present service, 185; rural electric associa- tion, 185.	Service—dismissal of complaint against sub- metering, 181.
Motor carriers — Commission jurisdiction over taxicabs, 188.	Water — Commission jurisdiction over streams, 191.



188
129
181
188
185
173
189
191
189;
185.
3.
sub-
ver

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

VIRGINIA STATE CORPORATION COMMISSION

Commonwealth of Virginia ex rel.
State Corporation Commission
v.
Columbia Broadcasting System,
Incorporated

[Case No. 6333.]

Interstate commerce, § 26 — What constitutes — Radio broadcasting.

Radio broadcasting constitutes interstate commerce, particularly where messages originating at the broadcasting company's studio in one state are sent to its control room in another state and thence to its transmitter in the state of origin, whence they are broadcast.

Radio, § 1 — Transmitting technique.

Discussion by the Virginia Commission of the manner of transmission of radio messages by sound waves and audio waves, p. 130.

Radio, § 1 — Nature and operation.

Discussion by the Virginia Commission of the nature and operation of radio broadcasting, p. 133.

Radio, § 1 — Laws governing.

Discussion by the Virginia Commission of the laws governing radio, p. 134.

Radio, § 1 — Federal Communications Act.

Discussion by Virginia Commission of the Federal Communications Act, p. 136.

[July 7, 1939.]

RULE awarded by Commission against the radio broadcasting system to show cause why it should not be fined for transacting business in Virginia without having obtained a certificate of authority; rule dismissed.

FLETCHER, Chairman: This case arises out of a rule awarded by the State Corporation Commission against Columbia Broadcasting System, Inc. (hereafter referred to as respondent) to show cause why it should not be

fined under § 3848 of the Code of Virginia for transacting business in Virginia without having first obtained the certificate of authority provided for under § 3847 of the Code of Virginia.

VIRGINIA STATE CORPORATION COMMISSION

The Facts

Respondent is a corporation chartered under the laws of the state of New York, with a maximum authorized capital of \$7,500,000. It is engaged in the business of radio broadcasting and owns and operates in its own name a number of broadcasting stations throughout the United States and, in addition, is affiliated with a large number of stations whereby, pursuant to contractual relations, these affiliated stations broadcast the programs of respondent. The business of broadcasting in which respondent is engaged consists in transmitting intelligence or messages in the form of programs, containing entertainment, educational, advertising, and other material to listeners in numerous states. (For convenience and to avoid repetition, the word "message" is herein used as meaning intelligence in the form of programs containing entertainment, educational, advertising, and other material which is broadcast to listeners in numerous states and for a similar reason the word "transmission" is used interchangeably with the word "broadcast.") These messages are transmitted by respondent through the ether without the aid of wires. To do so, the respondent operates a transmitting station, WJSV, at Alexandria, Virginia, pursuant to a license from the Federal Communications Commission and has owned and operated said station since December, 1936. Such station is now duly licensed under the Federal Communications Act of 1934 as a District of Columbia station.

The manner in which respondent transmits messages from Station WJSV is as follows:

Sound waves (i.e., the form taken

by the program messages which are to be delivered) are created by voice, musical instrument, or mechanical apparatus into, or in the vicinity of, an electrical instrument, known as a microphone. (The place at which the microphone is located and at which the program message is prepared for delivery will henceforth be referred to as the place of origination.) The sound waves so created fall upon the microphone (which is an instrument somewhat like the mouthpiece of a telephone) and are converted in the microphone into electrical impulses (audio-frequency current), which are referred to in the testimony as the "audio-waves." The audio wave from the microphone is then carried by respondent by telephone wire to the control room of the studios of respondent in the Earle building in Washington, D. C. This is true in the case of every message transmitted from Station WJSV in Virginia, no matter what was the place of origination of the message—whether in New York, Hollywood, Chicago, or some point in Virginia itself. At the control room in Washington this audio wave is amplified (stepped up) and then sent by respondent along telephone wires to the transmitting station at Alexandria. At the transmitting station respondent, by the insertion of electric power into a series of vacuum tubes arranged in suitable circuits, generates the electric current, known as radio-frequency current or carrier wave, as it is referred to in the testimony. The vacuum tubes receive their power from the generator and the generator receives its power from the motors and the motors are driven by the power purchased from the local power com-

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

pany at Alexandria. This high frequency wave, moving with the speed of light, is appropriately called the "carrier wave," because it carries the program message. As stated by witness Cohan:

". . . the radio (carrier) wave is a transfer method that conveys the program presented by the audio wave from the transmitter to the receiving set." (Word in parenthesis supplied.)

The audio wave coming from the studio in Washington is superimposed through instruments at the transmitter at Alexandria upon this carrier wave, thereby creating a single wave, i.e., a carrier wave, distorted or modulated by the superimposed audio wave. Technically, this procedure is described as modulation of the carrier wave. This fused carrier wave is then amplified if necessary and sent along wires to the antenna at Alexandria, whence it radiates out into space and travels without the aid of wires in the form of electro-magnetic waves to the public's receiving sets. In other words, the carrier wave "carries" the superimposed message (the audio wave) to receiving sets in many states, including Virginia. To summarize: Except in a few instances, hereinafter referred to, where messages have originated at a microphone situated in the transmitter building at Alexandria, respondent's *only* activity in Virginia has been and is the generation of the *carrier* wave for the sole purpose of transmitting the message coming to the transmitter in the form of audio waves to listeners in numerous states, including Virginia, and everything that is done at the transmitter at Alexandria thus has one, and only one,

purpose, and that is to send the messages originating in the form of audio waves out into the air so that they can be heard by listeners in numerous states. The receipt of the message at the receiving sets is virtually simultaneous with its delivery into the microphone. The message which respondent thus sends out from the WJSV transmitter in the form of modulated carrier waves could originate anywhere in or outside of the commonwealth of Virginia. The evidence shows, however, that actually approximately .998 of all the messages broadcast from the transmitter in Alexandria, since the respondent began to operate it in December, 1936, have originated at points outside Virginia, either in New York, Hollywood, Washington, D. C., or some other point. This is true whether the computation is based on the number of programs broadcast or the number of hours of broadcast. The messages thus originating from points outside Virginia include political speeches made by candidates for political office in Virginia. The record shows that since respondent has operated Station WJSV every political speech by a candidate for Virginia office has been made from the studios in Washington, D. C., and from the evidence it appears that the contention of the commonwealth that political speeches by candidates for Virginia office are broadcast by respondent from Virginia is incorrect, though, under the view taken by the Commission, it would make no difference whether political programs or other programs originated in Virginia. All messages originating outside of Virginia are heard by listeners throughout the United States

VIRGINIA STATE CORPORATION COMMISSION

and sometimes in Europe. Only .002 of all the messages sent out by respondent over the WJSV transmitter have originated at a microphone situated in the transmitter building in Virginia, and even these, as has already been stated, are first sent for operating reasons by wire to the main control room in Washington, D. C., and thence back to the transmitter in Alexandria, Virginia, whence they are broadcast. These messages, of course, are also heard by listeners throughout the United States. Therefore, every message broadcast by the respondent through Station WJSV in one fashion or another travels across state lines.

While the respondent began the operation of Station WJSV in December, 1936, the history of this station prior to that time will be stated.

It was first licensed by the Federal Communications Commission in 1926 and was then owned and operated by WJSV, Incorporated, a Delaware corporation, which duly domesticated under the laws of Virginia. At that time both the main studio and the transmitter were in Virginia and the station was designated as a Virginia station. In June, 1932, the station was leased to Old Dominion Broadcasting Company, a Delaware corporation, which also duly domesticated under the laws of Virginia. All of the stock of the latter corporation was owned by the respondent and the principal officers of the two corporations were the same. During the time WJSV was operated in the name of Old Dominion Broadcasting Company and until September 1936, the station was licensed as a Virginia station and a majority of the programs originated at the studios in Virginia. In September, 1936,

the license of WJSV was changed so that thereafter it was designated as a District of Columbia station. This change was made possible by an amendment of the Federal Communications Act in 1934, the effect of which was to give to the Federal Communications Commission wider discretion in the allocation of stations, whereas prior to that time allocation of stations was required to be made according to population and along geographical lines. In December, 1936, the license of WJSV was transferred to the parent company, the respondent, and Old Dominion Broadcasting Company was, according to the evidence, "washed out" and pursuant to § 3848 of the Code of Virginia it surrendered its certificate of authority.

The transmitter of Station WJSV is now and during its entire existence, irrespective of its ownership or operation, has been located in Virginia. Such transmitting station consists of a brick building, approximately 35 feet wide by 40 feet long, containing elaborate audio and control equipment, together with motor generators, vacuum tubes, and other electrical equipment, and it also includes two steel towers which hold the antenna. At the time the building was erected it housed the main studios of the station and those studios are still there, although since respondent began the operation of the station in 1936 the main studios have been in Washington. The value of the respondent's property in Virginia is approximately \$50,000, and there are six persons employed in Virginia in connection with the operation of the transmitter.

Respondent broadcasts from WJSV sustaining and commercial programs,

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

receiving compensation only for the latter, the sustaining programs being broadcast because, under regulations of the Federal Communications Commission, respondent is required to broadcast programs on the air for a definite period of time each day. As has been stated, while such programs may be heard by listeners throughout the United States and in some foreign countries, they are primarily intended for listeners in the District of Columbia, Maryland, Virginia, Pennsylvania, New York, New Jersey, and Delaware. Obviously it is to respondent's interest for its programs, especially advertising, to reach as large an audience as possible. Respondent accepts business from advertisers, including Virginia advertisers, where such business meets its requirements and pays its rates, but has had very little Virginia business. Prior to December, 1936, when respondent began the operation of the station, some commercial programs of candidates for political office in Virginia had been broadcast from such station. Obviously such programs were intended for Virginia listeners only, but no such political programs have been broadcast from the studios in Virginia since respondent assumed operation of the transmitter in December, 1936.

Nature and Operation of Radio

In order that there may be a better understanding of the nature and operation of broadcasting and of the issue here involved, a brief consideration of the operation of radio will be given.

Radio transmission is one of the great scientific achievements of all times. It has become one of the main

factors in the life and civilization of the world. Its importance is increasing and the protection of the public in the enjoyment of its benefits is an important function of government. Radio is a science operating according to certain unchanging and unchangeable laws of its own, one of which is the speed of radio waves, 186,000 miles or 300,000,000 meters per second. Radio waves travel in all directions for great distances into other states and foreign countries. Like the sun's rays, they travel outward in every direction from the point of origin towards a circumference whose radius no one can accurately determine. They cannot be confined by land, air, or water and they have no boundaries. States, nations, governments, and dictators are all absolutely helpless so far as confining them is concerned. They are everywhere around us when transmitters are operating. One may turn the dial of the receiver and hear sounds resulting from energy transmitted from widely separated places in the United States, Canada, and other countries. More than one station can transmit at the same time in the same geographical region (the extent of which depends upon the power used) only because radio waves having sufficiently different frequencies (wave lengths) can be detected separately to the exclusion of other waves by receiving apparatus. In the present state of the art a difference of 10 kilocycles is considered the smallest practical separation of frequencies. The frequencies, or wave lengths, thus separated are known as channels. A station transmits intelligibly for what may be called a service area and causes interference with other stations operat-

VIRGINIA STATE CORPORATION COMMISSION

ing on the same wave length in what may be called a nuisance area. A low-power station, even if it does not of itself transmit into other states, will cause interference with the reception of other stations broadcasting on the same wave length into the state in which the low-power station is located. Radio depends upon the use of electricity and without the use of electricity it cannot function. Every radio station contains a series of wired circuits and tubes which are used for the purpose of generating and sending out radio waves at a certain speed, called the frequency. This series of tubes, batteries, and condensers wired together form a collection of equipment known as the transmitter. This apparatus is wired to the antenna which is the wire from which these waves radiate. The waves go out from the transmitter by means of the antenna and come into the receiver by means of an aerial. *The electricity that is used in the transmitter and goes out through the air is furnished by batteries or by an electrical power connection.* The transmitter and antenna are entirely separate equipment but they are necessarily directly connected for purposes of operation of the sending station. See Dill on Radio Law, p. 40.

While the electricity used by the respondent in the operation of Station WJSV is purchased from the local power company at Alexandria, it is possible to generate electrical energy necessary for broadcasting by power furnished by means of a gasoline, Diesel, or steam engine operating a motor connected with the generator, or even by storage batteries, though the latter means would be impractical

for a large station and even if storage batteries were used for generating such electrical energy the batteries would have to be kept charged by means of some species of power furnished by an engine or by electricity, or else new batteries substituted in place of the ones in use when they ceased to generate the requisite energy.

Laws Governing Radio

Radio on account of its nature early received national and international consideration. (24 Op. Atty. Gen. 1902, p. 100; Treaty of Berlin, 37 Stat. 1565; Treaty of London, 38 Stat. 1672, 1707.) The first laws governing radio were international, for the reason that radio communications are both national and international, and radio communications are often international whether they are intended to be so or not. It may be noted that the international agreements governing the use of radio have been signed and approved by the government of every civilized nation on earth. In fact they are the only international agreements to which all nations have agreed and are the most universal of any laws ever created by the human family. Stations in one country can be heard in most other countries and, what is more important, they often interfere with stations in other countries. Without international regulation of some kind, effective use of radio beyond or even within the boundaries of states and nations is impossible. See Dill on Radio Law, p. 24.

The United States, to carry out the treaty provisions for avoiding interference, enacted the Radio Law of 1912 (37 Stat. 302, 47 USCA 51-60). That act was the first assertion on the

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

part of the Federal government of its complete sovereignty over radio, and it required licenses from the Secretary of Commerce and Labor for operation of all radio apparatus and made the licenses subject to regulations contained in the act and all subsequent acts and treaties. The act was directed mainly to the problems then existing which had to do with radio telegraphy and not broadcasting, although the language was broad enough to include radio telephony. Congress clearly believed at that time that it was acting under the interstate and foreign commerce clause of the Constitution. This is shown by the continuation of the first sentence of § 1 of the Act of 1912, which reads:

" . . . but nothing in this act shall be construed to be applied to the transmission and exchange of radiograms or signals between points situated in the same state."

In later legislation Congress assumed that the operation of any radio transmitting apparatus necessarily sends waves of interference beyond state lines, and even if a station did not send signals across state lines, its operation might interfere with the reception of signals from without the state and that, therefore, all radio transmitting apparatus must be operated under a government license. As the number of radio stations increased, the courts found in the act limitations upon the authority of the government to deal adequately with questions of interference. (*Hoover v. Intercity Radio Co.* [1923] 52 App. D. C. 339, 286 Fed. 1003; *United States v. Zenith Radio Corp.* 12 F. (2d) 614.) In the latter case, decided in 1926, Judge Wilkerson decided that the penalty pro-

visions of the Law of 1912 could not be enforced and consequently regulation broke down. When the Attorney General ruled (35 Op. Atty. Gen. 126) that the act did not give the Secretary of Commerce authority to assign channels, fix hours of operation, limit use of power, or grant licenses of limited duration, there resulted a condition of general confusion. There was a scramble for preferred channels. The Secretary of Commerce and Labor was required to issue licenses to all. Many new stations were built and assertions of property rights in wave lengths were made. On December 8, 1926, Congress passed a joint resolution limiting license periods and requiring waiver of claims to wave lengths or the use of the ether as a condition precedent to licenses. (44 Stat. 917.) In order to remedy these conditions, on February 23, 1927, the Radio Act of 1927 was enacted and approved. (44 Stat. 1162, 47 USCA 81, et seq.) It asserted government control over all channels of radio transmission, provided a license system for radio stations, and prohibited radio transmission, under penalty, except with a license in that behalf granted under the provisions of the act. For the purposes of the act the United States was divided into five zones, Virginia being in the second. A Radio Commission was created whose duty it was from time to time, as public convenience, interest, or necessity required, to classify stations, regulate nature of service, assign wave lengths, determine location of classes of stations or individual stations, regulate apparatus, prevent interference, establish station areas, and regulate chain broadcasting. It was provided that

VIRGINIA STATE CORPORATION COMMISSION

the licensing authority, if public convenience, interest, and necessity should be served, subject to limitations of the act, should grant licenses, and in so doing, when and in so far as there was demand for the same, should "make such a distribution of licenses, bands of frequency, or wave lengths, periods of time for operation, and of power among the different states and communities as to give fair, efficient, and equitable radio service to each of the same." The requirement that before granting a license to operate radio transmitting apparatus the Federal regulatory body must find that "public convenience, interest, and necessity will be served thereby" was entirely new in Radio Law, and in fact it had no direct precedent in any Federal regulatory law. This requirement was a much broader test than "interference," but necessarily included interference because any station that caused interference would certainly not be serving the public interests. By an amendment of the Act of 1927 made in 1928, the term of licenses granted or renewed was limited to three months, and it was provided more specifically for an equality of radio service among the zones, and it was required that the licensing authority should, as nearly as possible, make and maintain an equal allocation of broadcasting facilities to each of the zones. Each license was required to contain the statement that the license did not vest in the licensee any right to operate the station, nor any right in the use of frequencies or wave length designated in the license beyond the term thereof, nor in any other manner than authorized therein. Section 21 of the act provided for construction permits upon a

finding of public convenience or necessity and for license to operate upon compliance with the provisions of the construction permit. Another section provided for appeal to the court of appeals of the District of Columbia from orders denying licenses or renewals and authorized that court to hear additional evidence and to alter or revise the judgment of the Commission and to enter such judgment as it might deem just. But owing to the decision in the case of *General Electric Co. v. Federal Radio Commission*, 58 App. D. C. 386, P.U.R. 1929D, 321, 31 F. (2d) 630, certiorari denied (1930) 281 U. S. 464, 74 L. ed. 969, 50 S. Ct. 389. Congress amended this section so as to provide that the court could affirm or reverse an order of the Commission, but the review by the court was limited to questions of law and the findings of fact were made conclusive if supported by substantial evidence and not arbitrary or capricious. The Commission created by the Act of 1927 proceeded with regulatory measures to bring order out of chaos and to stop what was rapidly becoming a general public nuisance. The problem of distributing the channels equitably among the different zones and working out a plan which would avoid interference was one of great difficulty. It was obvious that such a plan must be devised and made effective, or in the resulting confusion both broadcasters and receivers would lose everything.

The Communications Act of 1934

In 1934 another general Radio Act was passed, known as the Communications Act of 1934. Its main purpose was to centralize the authority to regu-

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

late all interstate and foreign wire and radio communications in one body. The new law changed the name of the new body from Federal Radio Commission to Federal Communications Commission. Congress had previously given the Federal Radio Commission only a part of the power of regulation of radio communications. The Interstate Commerce Commission still possessed the power to regulate common carriers by radio under the Radio Act of 1927, but by the Act of 1934 Congress delegated complete power of regulation of all communication services in the United States to this Commission and also set up definite standards to guide it in its administration of the delegated powers. This law, which is the law now regulating radio in the United States, clearly gives the Commission power to control all instruments emitting radio waves, because, in addition to the general grant of broad powers, the Commission is given the power "to make such regulations, not inconsistent with law, as it may deem necessary to prevent interference between stations and to carry out the provisions of this act." Title III of the Communications Act of 1934 contains the heart of the Radio Law as it now exists. It begins with the requirement as to station licenses. Section 301, which is the first section of Title III (47 USCA) provides:

"No person shall use or operate any apparatus for the transmission of energy or communications or signals by radio . . . except under and in accordance with this act and with a license in that behalf granted under the provisions of this act."

This applies to all states, territories, and possessions, including the District

of Columbia and Hawaii, but not to the Philippine Islands or the Canal Zone. It is so sweeping that it is not lawful for anyone to use radio transmitting apparatus within the jurisdiction of the Commission without a license. Under § 303 of the act the Commission is granted power to regulate radio by two methods. One part of the statute says that the Commission "shall" do certain things; another part says that the Commission "shall have authority" to do certain other things. Even the duties prescribed under the "shall" clause are to be performed as public convenience, interest, or necessity requires, which makes the Commission the judge of when it "shall" perform these duties. Section 303 of the act provides that, except as otherwise provided therein, the Commission, from time to time, as public convenience, interest, or necessity requires, shall (a) classify radio stations; (b) prescribe the nature of the service to be rendered by each class of licensed stations and each station within any class; (c) assign bands of frequencies to the various classes of stations and assign frequencies for each individual station and determine the power which each station shall use and the time during which it may operate; (d) determine the location of classes of stations or individual stations; (e) regulate the kind of apparatus to be used from each station and from the apparatus therein; (f) make regulations not inconsistent with law as it may deem necessary to prevent interference between stations and to carry out the provisions of the act. (The Commission's regulations on the subject of procedure in connection with applications, grants, renewals,

VIRGINIA STATE CORPORATION COMMISSION

and appeals, as they relate to construction permits and licenses, are voluminous and are several times as large as the Communications Act of 1934 itself; (g) study new uses for radio and provide for experimental use of frequencies, and generally encourage the larger and more effective use of radio in the public interest. The additional powers granted the Commission in § 303, from subsection (h) to (q), inclusive, are all grants under the "have authority" clause. They cover practically every kind of authority which any regulatory body could possibly need and, with the exception of making special regulations for stations engaged in chain broadcasting, the Commission has exercised all of these powers. Under these subsections the Commission has authority: (h) to establish areas or zones to be served by any station; (i) to make special regulations applicable to radio stations engaged in chain broadcasting; (j) to make general rules and regulations requiring stations to keep records of programs, transmission of energy, and of the communications or signals sent; (k) to exclude from the requirements of any regulation any radio station on railroad rolling stock, or to modify such regulations, in the discretion of the Commission; (l) to prescribe the qualifications of station operators, to classify them according to the duties to be performed, to fix the forms of their licenses, and to issue them to such citizens of the United States as the Commission finds qualified; (m) to suspend the license of any operator for a period not exceeding two years upon proof sufficient to satisfy the Commission that the licensee has violated certain specified

provisions of the act, etc.; (n) to inspect all transmitting apparatus to ascertain whether in construction and operation it conforms to the requirements of the statute, and to the rules and regulations of the Commission and the license under which it is constructed or operated; (o) to designate call letters of all stations; (p) to cause to be published such letters and such other announcements and data as in the judgment of the Commission may be required for the efficient operation of radio stations subject to the jurisdiction of the United States and for the proper enforcement of the statute; (q) to require the painting or illumination—or the painting and illumination—of radio towers if and when in the judgment of the Commission such towers constitute, or if there is a reasonable possibility that they may constitute, a menace to air navigation.

Because commerce by radio can only be carried on successfully and intelligently by a limited number of radio transmitting instruments operating simultaneously, Congress must regulate the operation of those instruments. To regulate radio it must limit the number of transmitters in operation at any and all hours of the day or night and fix the number of waves to be emitted by naming the frequency and must control the location of the transmitting apparatus and state the amount of power to be used and must prescribe the hours during which each transmitter may operate.

Instead of establishing government-owned and government-operating stations, as most other great nations have done, Congress has adopted a policy of permitting private individuals, firms, or corporations to own and operate

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

radio stations, but it has provided that these privately owned and privately operated radio stations shall be subject to a system of government regulation and control. Instead of regulating radio directly by statute, Congress has created the Federal Communications Commission and granted it the authority to regulate radio according to certain standards written into the law. The means and method of enforcing this system of government control is the radio license, which is the alpha and omega of radio regulation. No station can operate without a license and every station must operate within the terms of a license, which must be renewed at regular intervals and which may be revoked for a violation of its terms or of the regulations or of the law. The statute governing applications for licenses is found in § 308 of the act and the application is required to set out in detail certain facts. Under § 319 of the Act of 1934, before an applicant for a license for a new station can secure a license he must first secure a construction permit, which is the first step in securing a license. In fact, once the construction permit is granted, the securing of a license is a formal matter after the construction of the station has been completed in accordance with the terms of the permit. Of course, a citizen can build a station without such permit but when he applies to the Commission for a license the Commission cannot grant it because he will not have complied with the law. Subsection (a) of § 319 reads:

"The Commission may grant such permit if public convenience, interest, or necessity will be served by the construction of the station. This applica-

tion shall set forth *such facts as the Commission by regulation may prescribe as to the citizenship, character, and the financial, technical, and other ability of the applicant to construct and operate the station, the ownership and location of the proposed station, and of the station or stations with which it is proposed to communicate, the frequencies desired to be used, the hours of the day or other periods of time during which it is proposed to operate the station, the purpose for which the station is to be used, the type of transmitting apparatus to be used, the power to be used, the date upon which the station is expected to be completed and in operation, and such other information as the Commission may require.* Such application shall be signed by the applicant under oath or affirmation." (Italics supplied.)

In considering an application for a construction permit, the first question is whether or not the applicant is legally qualified. This applies to all three kinds of applicants: individuals, corporations, and co-partnerships. The Commission has prepared a form for making an application which contains a series of questions, with blanks following, to be filled in according to the nature of the applicant. If the applicant is a corporation, it must accompany its application with two copies of its charter and one copy must have been certified by the secretary of state of the state in which it is incorporated. Because a corporation can only do those things its charter authorizes it to do, it is necessary that the owning and operating of a radio station be included in its powers. Frequently corporations making applica-

VIRGINIA STATE CORPORATION COMMISSION

tion for a construction permit or transfer of license find it necessary to amend their articles of incorporation and until so amended the Commission simply keeps the application on file without further consideration. The application form also requires the listing of all stockholders, which is due to the provisions of subsection (a) of § 310 of the act, which reads as follows:

"Section 310(a). The station license required hereby shall not be granted to or held by—

(1) Any alien or the representative of any alien;

(2) Any foreign government or the representative thereof;

(3) *Any corporation organized under the laws of any foreign government;*

(4) Any corporation of which *any officer or director is an alien or of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country;*

(5) Any corporation *directly or indirectly controlled by any other corporation of which any officer or more than one-fourth of the directors are aliens, or of which more than one-fourth of the capital stock is owned of record or voted, after June 1, 1935, by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country, if the Commission finds that the public interest will be served by the refusal or the revocation of such license.*

"Nothing in this subsection shall prevent the licensing of radio apparatus on board any vessel, aircraft, or other mobile station of the United States when the installation and use of such apparatus is required by Act of Congress or any treaty to which the United States is a party." (Italics supplied.)

Subdivisions 1 to 4 of said subsection (a) are mandatory. The Commission is forbidden to grant a license to any applicant included in those provisions. The purpose of the statute is to prevent anybody not an American citizen or an American-owned corporation from owning or controlling a radio station. Every application must state that the applicant is free from alien ownership or control as provided by subsection (a) of § 310. While these provisions seem a strict requirement, it is only necessary to recall that in most other countries not even a citizen of those countries can own and operate a station, and in most of the foreign countries all radio facilities are owned, controlled, and operated by the government. In those countries where they do permit an individual citizen to own and operate a station, the government keeps such close control of its operations that it might as well be directly controlled by the government, and such stations are controlled by orders and decrees. In the countries where the government operates radio, the Minister of the Cabinet having charge over radio rules the stations by direct government supervision. The reason why the governments of other countries have been so fearful of allowing private ownership of radio transmitting facilities is that they fear the power of radio com-

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

munication might be used against the government, and private owners might use it to overturn the government or to aid a foreign power desiring to attack that country. The applicant must show that he or it is financially qualified, and if the applicant is a corporation the application must show the corporation itself has finances, and what it will cost to build and operate the station and that the corporation itself has the money and assets to do this, the fact that an officer or stockholder has the requisite funds not being sufficient. The application should show that the applicant is technically qualified. Few broadcast licensees know anything about the technical side of the radio business, but have engineers to attend to that. The applicant usually, and always if it be a corporation, states that he or it has employed a qualified engineer and licensed radio operator to operate the station and the Commission usually recognizes this as a sufficient showing in hearings for broadcasting station operations. See Dill on Radio Law, p. 142. The application should also show the location, power, and equipment of the proposed station and the type of program that the applicant expects to provide the listeners, and the application divides the program into commercial or advertising programs and the station sponsored programs. It also provides blank space on the application form for percentages of time to be given to entertainment, education, religion, fraternal, etc., on each of the two kinds of programs and calls for a statement of the new kinds of service the proposed station will render that is not then available to radio listeners in that area, and the last clause of the appli-

cation is the waiver clause reprinted from the statute to the effect that the applicant waives any claim to the use of any particular frequency or of the ether as against the regulatory power of the United States because of any previous use of the same. The Commission exercises the power to license and suspend radio operators granted to it by subsections (l) and (m) of said § 303, continuously. It determines their qualifications by examinations, which are no longer a mere formality, as they formerly were, but are real examinations.

Section 318 of the act requires that all regular broadcasting stations must be operated only by licensed radio operators. Until 1937 the radio laws required that no radio transmitting apparatus could be operated except by a licensed operator, but on March 29, 1937, Congress amended § 318 of the Communications Act to authorize the Commission to make exceptions to such requirements. This was done to enable the Commission to license automatic radio devices and apparatus used as a part of the 2-way communication systems, such as the combination receiving and sending apparatus used in city and state police radio communications. Section 170 and 171 of the rules and regulations applicable to broadcasting stations read:

170. "The licensee of each station shall keep a licensed operator or operators of the grade specified by the secretary of the Commission on duty during all periods of actual operation of the transmitter, at the place where the transmitting equipment is located."

171. "A licensed operator on duty and in charge of the transmitter may, at the discretion of the licensee, be em-

VIRGINIA STATE CORPORATION COMMISSION

ployed for additional operator's duties commensurate with the grade of operator's license which he holds."

The operators of radio stations are the most important factors in the radio set-up. Every licensee is at the mercy of his operator, as it were. If an operator fails to operate the apparatus in accordance with the terms of the license, the licensee will soon be in trouble with the inspection and supervising departments of the Commission. Officials of these divisions keep almost continuous checks on the operation of stations and on all transmitting apparatus to be certain it conforms to the license and to the rules and regulations of the Commission. This inspection is a highly important part of regulation. Every licensee must keep the transmitting equipment in first-class condition, else it will cause interference.

During the World War, under the provisions of the Radio Act of 1912, which gave the President power to close all radio stations "in time of war or public peril and disaster" and to authorize any government department to use the apparatus of any station during such period on payment of just compensation, and under proclamations of the President, the War and Navy Departments took control of all radio stations in the United States and took over two German wireless stations situated in the United States and disposed of their equipment. In the Joint Resolution of Congress dated July 16, 1918, Congress gave the President broad authority over all kinds of communication services during the War and provided that whenever "he shall deem it necessary for the national security or defense" he

was "authorized to supervise and take possession and control of any radio system or systems and operate them as he might decide to be useful or desirable." Section 606 of the Act of 1934 would seem to give the President full power and control over radio stations and their operation during time of war. This section is illustrative of the comprehensiveness of the Radio Act of 1934.

There is nothing in the act or the regulations promulgated by the Commission which requires a corporation making application for a broadcasting station, a construction permit, or for a license to operate a radio station in a state other than by which it was created to comply with or show a compliance with the laws of such state concerning foreign corporations doing business therein.

Purpose and Scope of Radio Act of 1934

The purpose of the Communications Act of 1934 "is to secure to the people of the several states and communities a fair, efficient, and equitable distribution of radio service." *Heitmeyer v. Federal Communications Commission* (1937) 68 App. D. C. 180, 95 F. (2d) 91.

In *Sabrowsky v. United States* (1938) 101 F. (2d) 183, decided by the circuit court of appeals of the third circuit, the Federal Communications Act of 1934 was considered at length, and it was held that such act was designed to the end that the Federal Communications Commission should have jurisdiction over and power to regulate within the terms of the act all interstate and foreign communication and transmission of energy by

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

wire and radio. The wide and comprehensive scope of the act is apparent from an analysis of its provisions and will be hereinafter adverted to.

The Question Presented

Section 3847 of the Code provides in effect that every foreign corporation shall, *before* doing business in this state, secure from the State Corporation Commission a certificate of authority to transact business. Such certificate is issued upon presenting to the Commission—

"(a) a written power of attorney executed in duplicate, appointing the secretary of the commonwealth of this state and his successor in office its agent upon whom all lawful process shall be served, and who shall be authorized to enter an appearance in its behalf; (b) two duly authenticated copies of the charter of the corporation; and (c) a certificate of the auditor of public accounts, showing the payment into the treasury of the fee required by law to be paid by such corporation,"

The amount of the entrance fee is fixed by § 207 of the Tax Code of Virginia and in the case of respondent would be \$1,000.

Section 3848 of the Code imposes a fine of not less than \$10 nor more than \$1,000 upon any foreign corporation doing any intrastate business in Virginia without having first secured the required certificate of authority. Other penalties are also prescribed. Respondent is a foreign corporation and has not secured such certificate of authority and, therefore, the question involved in this case is whether or not it should, in view of the facts disclosed by the evidence, comply with the laws

of Virginia and secure such certificate of authority.

It has been repeatedly held by this Commission and the court of appeals of Virginia that §§ 3847 and 3848 of the Code and § 207 of the Tax Code have no application to a corporation doing a purely interstate business, and that the words "doing business" or "transacting business," as used in such statutory enactments, do not include the transaction of interstate business within a state, but mean, when applied to commerce, domestic business only—business which originates, is carried on, and is completed within the jurisdiction of the state of Virginia—what is often characterized as *intrastate* as distinguished from *interstate* business. *General Railway Signal Co. v. Commonwealth* (1916) 118 Va. 301, 87 S. E. 598, aff'd (1918) 246 U. S. 500, 62 L. ed. 854, 38 S. Ct. 360; *Dalton Adding Machine Co. v. Commonwealth* (1916) 118 Va. 563, 88 S. E. 167, aff'd (1918) 246 U. S. 498, 62 L. ed. 851, 38 S. Ct. 361; *Western Gas Construction Co. v. Commonwealth* (1927) 147 Va. 235, 136 S. E. 646, aff'd (1928) 276 U. S. 597, 72 L. ed. 723, 48 S. Ct. 319; *Railway Express Agency v. Com. ex rel. State Corp. Commission* (1929) 153 Va. 498, 150 S. E. 419, aff'd (1931) 282 U. S. 440, 75 L. ed. 450, P.U.R. 1931B, 228, 51 S. Ct. 201; *Atlantic Refining Co. v. Commonwealth* (1936) 165 Va. 492, 183 S. E. 243, aff'd (1937) 302 U. S. 22, 82 L. ed. 24, 58 S. Ct. 75.

In the case last cited the constitutionality of the Virginia statutes regulating the doing of business in Virginia by foreign corporations was upheld by the Supreme Court of the United States after a vigorous attack having

VIRGINIA STATE CORPORATION COMMISSION

been made upon its constitutionality.

It has been held by the Supreme Court of the United States that a statute requiring a foreign corporation, doing interstate commerce business, to file its charter and obtain a certificate to do business in the state is unconstitutional. *International Text Book Co. v. Pigg* (1910) 217 U. S. 91, 54 L. ed. 678, 30 S. Ct. 481, 27 L.R.A. (N.S.) 493, 18 Ann. Cas. 1103; *Dahnke-Walker Milling Co. v. Bondurant* (1921) 257 U. S. 282, 66 L. ed. 239, 42 S. Ct. 106; *Sioux Remedy Co. v. Cope* (1914) 235 U. S. 197, 59 L. ed. 193, 35 S. Ct. 57; *Buck's Stove & Range Co. v. Vickers* (1912) 226 U. S. 205, 57 L. ed. 189, 33 S. Ct. 41; *Cheney Bros. Co. v. Massachusetts* (1918) 246 U. S. 147, 62 L. ed. 632, 38 S. Ct. 295; *Ozark Pipe Line Corp. v. Monier* (1925) 266 U. S. 555, 69 L. ed. 439, 45 S. Ct. 184, discussed in *Southern P. Co. v. Gallagher* (1939) 306 U. S. 167, 83 L. ed. 586, 59 S. Ct. 389. These cases make it plain that if respondent does only interstate commerce business in Virginia, it may not be required to file its charter, pay a fee, and secure a certificate of authority to do business in Virginia.

The Contention of the Commonwealth

The commonwealth contends that the generation of electrical energy at its transmitter at Alexandria, and, with this energy, creating in Virginia carrier waves is essential to the activities of respondent in Virginia, and, without such generation of electrical energy, broadcasting from a station in Virginia could not take place and that such generation of this electrical energy and with the energy creating the carrier waves constitutes intrastate

commerce, and that, therefore, respondent must secure a certificate of authority to transact business. It further contends that the originating of messages at the studios in the transmitter building of respondent at Alexandria, including such programs as are intended only for Virginia listeners, constitutes intrastate business in Virginia and requires such certificate of authority.

The Contention of Respondent

Respondent contends that its business is the transmission of interstate messages consisting of programs containing entertainment, educational, advertising, and other material; that even though some of the messages originate in Virginia, such transmission constitutes interstate commerce because those messages are transmitted to listeners outside the state; that respondent's acts in Virginia, to wit, the generation of carrier waves in Virginia, are necessary to effectuate such transmission; that the cases show that these acts, therefore, constitute interstate commerce because interstate commerce cannot be broken down into its component parts but must be regarded as a whole; and, that since those acts constitute interstate commerce, Virginia may not require respondent to obtain a certificate of authority to perform such acts in the commonwealth. It further contends that broadcasting in all its phases is peculiarly national in scope; that Congress as preëmpted the field of regulation of the matters involved in the case at bar; that Congress has vested the Federal Communications Commission with power over those matters; that respondent has obtained a license from

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

that Commission for operations which include the transmission of messages originating in Virginia as well as elsewhere and the generation in Virginia of carrier waves and that any legislation which requires respondent to obtain from the state of Virginia a certificate of authority to do these acts in Virginia is void because it conflicts with congressional action on the same subject.

Radio broadcasting is interstate commerce, and the generation by respondent of the carrier waves at the transmitter at Alexandria forms an integral and absolutely essential part of the transmission of the messages, for without them the broadcasting of messages could not take place.

The primary question involved in this case, therefore, is whether or not the business done by the respondent in Virginia is interstate commerce.

That the transmission of program messages across state lines by radio broadcasting companies constitutes interstate commerce was held by the Supreme Court of the United States most recently in Fisher's Blend Station v. Washington Tax Commission (1936) 297 U. S. 650, 80 L. ed. 956, 960, 56 S. Ct. 608, where Mr. Justice Stone, in delivering the opinion of the court, said :

"The essential purpose and indispensable effect of all broadcasting is the transmission of intelligence from the broadcasting station to distant listeners. It is that for which the customer pays. By its very nature broadcasting transcends state lines and is national in its scope and importance—characteristics which bring it within the purpose and protection and subject it to the control of the commerce clause."

In numerous cases the lower Federal courts have held that the transmission of program messages across state lines by radio broadcasting companies constitutes interstate commerce. See KVL v. Washington Tax Commission (1935) 12 F. Supp. 497; United States v. Baker (1936) 18 F. Supp. 48; Whitehurst v. Grimes (1927) 21 F. (2d) 787; United States v. American Bond & Mortgage Co. (1929) 31 F. (2d) 448, aff'd (1931) 52 F. (2d) 318, P.U.R.1932A, 522, certiorari denied (1932) 285 U. S. 538, 76 L. ed. 931, 52 S. Ct. 311; General Electric Co. v. Federal Radio Commission, 58 App. D. C. 386, P.U.R.1929D, 321, 31 F. (2d) 630, certiorari denied (1930) 281 U. S. 464, 74 L. ed. 969, 50 S. Ct. 389; New York v. Federal Radio Commission (1929) 59 App. D. C. 129, 36 F. (2d) 115, certiorari denied (1930) 281 U. S. 729, 74 L. ed. 1146, 50 S. Ct. 246; Station WBT v. Poulnot (1931) 46 F. (2d) 671; KFKB Broadcasting Asso. v. Federal Radio Commission (1931) 60 App. D. C. 79, 47 F. (2d) 670; Federal Radio Commission v. Nelson Bros. Bond & Mortg. Co. 289 U. S. 266, 77 L. ed. 1166, P.U.R.1933D, 465, 53 S. Ct. 627, reversing (1932) 61 App. D. C. 315, P.U.R.1933C, 308, 62 F. (2d) 854; Trinity Methodist Church v. Federal Radio Commission (1932) 61 App. D. C. 311, 62 F. (2d) 850; Chicago Federation of Labor v. Federal Radio Commission (1930) 59 App. D. C. 333, 41 F. (2d) 422; Journal Co. v. Federal Radio Commission (1931) 60 App. D. C. 92, 48 F. (2d) 461.

The state courts have also so held. See Marconi Wireless Teleg. Co. v. Commonwealth (1914) 218 Mass.

VIRGINIA STATE CORPORATION COMMISSION

558, 106 N. E. 310, Ann. Cas. 1916C, 214; *Atlanta v. Southern Broadcasting Co.* (1937) 184 Ga. 9, 190 S. E. 594; *Van Dusen v. Department of Labor & Industries* (1930) 158 Wash. 414, 290 Pac. 803.

In Fisher's Blend Station v. Washington Tax Commission, *supra*, it appeared that "appellant's entire income consists of payments to it by other broadcasting companies or by advertisers for broadcasting, from its Washington (state) stations, advertising programs originating there or transmitted to them from other states by wire. Appellant 'sells time' to its customers at stipulated rates, during which it broadcasts from its stations such advertising programs as may be agreed upon. During such time as is not sold, it broadcasts, at its own expense, 'sustaining' programs, as required by the regulations of the Federal Radio Commission. The customers desire the broadcasts to reach the listening public in the areas which appellant serves, and a large number of persons, many of them in other states, listen to the broadcasts from appellant's stations." The question involved was "whether a state occupation tax, measured by the gross receipts from radio broadcasting from stations within the state, is an unconstitutional burden on interstate commerce." In its opinion the court, at p. 654 of 297 U. S. said:

"Appellant is thus engaged in the business of transmitting advertising programs from its stations in Washington to those persons in other states who 'listen in' through the use of receiving sets. In all essentials its procedure does not differ from that employed in sending telegraph or telephone messages across state lines,

which is interstate commerce. . . . In each, transmission is effected by means of energy manifestations produced at the point of reception in one state which are generated and controlled at the sending point in another. Whether the transmission is effected by the aid of wires, or through a perhaps less well-understood medium, 'the ether,' is immaterial, in the light of those practical considerations which have dictated the conclusion that the *transmission of information interstate is a form of 'intercourse,' which is commerce.* See *Gibbons v. Ogden* (1824) 9 Wheat. 1, 189, 6 L. ed. 23, 68." (Italics supplied.)

In *United States v. American Bond & Mortg. Co.* *supra*, 31 F. (2d) at p. 454, it is said:

"It does not seem to be open to question that radio transmission and reception among the states are interstate commerce. To be sure it is a new species of commerce. Nothing visible and tangible is transported. There is not even a wire, over which 'ideas, wishes, orders, and intelligence' are carried. A device in one state produces energy which reaches every part, however small, of the space affected by its power. Other devices in that space respond to the energy thus transmitted. The joint action of the transmitter owned by one person and the receiver owned by another is essential to the result. *But that result is the transmission of intelligence, ideas, and entertainment.* It is intercourse, and that intercourse is commerce." (Italics supplied.)

From the facts above stated, it is plain that the generation by respondent of carrier waves in its transmitter at Alexandria, Virginia, consists only

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

of activities which are an inherent and necessary part of and in furtherance of the interstate transmission of program messages. Every act done by the respondent in Virginia in connection therewith has only one purpose and effect, i. e., the transmission and delivery of these messages and these activities form an integral and absolutely essential part of the messages. *They constitute so component a part of the transmission that the broadcasting of messages in interstate commerce could not take place without them.* The generating of this electrical energy and with this energy creating in Virginia electro-magnetic or carrier waves, so immediately connected with the business of transmitting messages in interstate commerce, therefore, are a part of that commerce and within the protection of the commerce clause of the Constitution, and such activities cannot be classified as intrastate commerce.

This conclusion is made clear by the cases which show that many activities, though they may take place wholly within a state, nevertheless cannot be classified as intrastate commerce if they are incident to and in furtherance of an interstate commerce business, and also show that such activities, even though they take place wholly within one state, cannot be segregated but must be regarded in law, as they are in fact, as a part of interstate commerce.

A recent case demonstrating this is *Puget Sound Stevedoring Co. v. Washington Tax Commission* (1937) 302 U. S. 90, 92, 82 L. ed. 68, 58 S. Ct. 72, where there was involved an appeal by the Stevedoring Company from a judgment of the state court

dismissing its suit to enjoin the collection of a tax imposed by the state of Washington for the purpose of engaging in business activities within such state. The tax was to be $\frac{1}{2}$ of 1 per cent of the gross business done. The Stevedoring Company, a Washington corporation, attempted to enjoin the tax on the ground that it was engaged in interstate commerce and that the tax imposed an unlawful burden on such commerce. The sole question before the court was whether the business done by the Stevedoring Company within the state of Washington constituted interstate commerce. The main business done by the Stevedoring Company was that it contracted with a shipowner or shipmaster to load or discharge a vessel through its own (the company's) employees, controlling and directing the work itself. All vessels so served were engaged exclusively in interstate or foreign commerce. The Supreme Court of the United States overruled the state court on this portion of the case and held that these activities of the Stevedoring Company, though done wholly within the state, were in interstate commerce, for the reason that the company's activities constituted a necessary component in the transportation of cargoes in interstate commerce and without such activities in loading and unloading there could be no interstate transportation of cargo by water. In a unanimous decision written by Mr. Justice Cardozo, the court said:

"1. The business of appellant, in so far as it consists of the loading and discharge of cargoes by longshoremen subject to its own direction and control, is interstate or foreign commerce. *Transportation of a cargo by water*

VIRGINIA STATE CORPORATION COMMISSION

is impossible or futile unless the thing to be transported is put aboard the ship and taken off at destination. A stevedore who in person or by servants does work so indispensable is as much an agency of commerce as shipowner or master. 'Formerly the work was done by the ship's crew; but, owing to the exigencies of increasing commerce and the demand for rapidity and special skill, it has become a specialized service devolving upon a class "as clearly identified with maritime affairs as are the mariners." . . . No one would deny that the crew would be engaged in interstate or foreign commerce if busied in loading or unloading an interstate or foreign vessel.

. . . The longshoreman busied in the same task bears the same relation as the crew to the commerce that he serves. Indeed, for the purposes of the Merchant Marine Act ((June 5, 1920) 41 Stat. at L. 988, 1007, Chap. 250, 46 USCA § 861), a stevedore is a 'seaman.' International Stevedoring Co. v. Haverty (1926) 272 U. S. 50, 71 L. ed. 157, 47 S. Ct. 19. *A stipulation in the record tells us that any serious interruption in the service of such cargo handlers cripples at once the activities of a port and slows down and obstructs the free and steady flow of commerce.* We might take judicial notice of the fact if the stipulation were not here. What was done by this appellant in the business of loading and unloading was not prolonged beyond the stage of transportation and its reasonable incidents. Cf. Baltimore & O. S. W. R. Co. v. Burtch (1924) 263 U. S. 540, 68 L. ed. 433, 44 S. Ct. 165. . . . True, the service did not begin or end at the ship's side, where the cargo is placed upon

a sling attached to the ship's tackle. It took in the work of carriage to and from the 'first place of rest,' which means that it covered the space between the hold of the vessel and a convenient point of discharge upon the dock. Sometimes, though not, it seems, under appellant's contracts, the work in the hold is done by members of the crew, and the work upon dock by employees of the dock company. Sometimes the cost is absorbed by the vessel and sometimes billed as an extra charge to shipper or consignee. *The fact is stipulated, however, that no matter by whom the work is done or paid for, 'stevedoring services are essential to water-borne commerce and always commence in the hold of the vessel and end at the first "place of rest," and vice versa.'* In such circumstances services beginning or ending in the hold or on the dock stand on the same plane for the purposes of this case as those at the ship's sling. The movement is continuous, is covered by a single contract, and is necessary in all its stages if transportation is to be accomplished without unreasonable impediments. The situation thus presented has no resemblance to that considered in New York ex rel. Pennsylvania R. Co. v. Knight (1904) 192 U. S. 21, 26, 48 L. ed. 325, 327, 24 S. Ct. 202, where an interstate railroad furnished its passengers with taxicab service to and from its terminus, the service being 'contracted and paid for independently of any contract or payment for strictly interstate transportation.' (Italics supplied.)

The above case would seem to be decisive of the one at bar. In that case all the activities took place wholly within the state of Washington. Cer-

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

tainly the acts of loading and unloading are normally intrastate acts. Yet the court held that in that case they constituted acts in interstate commerce because the acts were *an essential ingredient* in the transmission of cargo in interstate commerce, and that *without such acts there could be no such commerce*. So in the case at bar, the generation of the carrier waves by the respondent at Alexandria is an essential ingredient of the transmission of messages in interstate commerce and without such acts there could be no such commerce.

Van Dusen v. Department of Labor & Industries (1930) 158 Wash. 414, 290 Pac. 803, also supports the conclusion that the respondent's activities in Virginia are in interstate commerce. In that case it appeared that the Northwest Radio Service Company was a corporation and owned and operated radio station KGA at Spokane, in Washington, which was operated with a 5,000 watts power under license by the Federal Radio Commission, and which at all times was connected by telephone wires with cities in other states for the purpose of receiving and rebroadcasting programs originating in other states. In the course of the operation of the station it became necessary to install an ice machine for the purpose of producing cold water, which was used in cooling the radio tubes employed in the transmitting station, and, unless the tubes were properly cooled, the transmission of programs from the stations outside of the state would be seriously impaired, if not altogether stopped. On March 17, 1929, the station signed off for the night at about 11 p. m., and immediately thereafter the employees of the station com-

menced operations for installation of the ice machine and in so doing it was necessary to move the switchboard in the room in which the ice machine was to be located. The switchboard was an integral part of the apparatus used in the transmitting station in broadcasting programs from KGA. While moving, or attempting to move, the switchboard the employee was accidentally electrocuted. It was admitted that the station, during the hours that it was broadcasting, was carrying on a business interstate in character. It was held that the removal of the switchboard preparatory to the installation of the ice machine was a work so closely related to interstate commerce, in which the station was engaged, as to be a part of such commerce, and that the work in which the employee was engaged at the time of his death was so closely related to interstate commerce as to be a part of it and, therefore, there could be no recovery under the Workmen's Compensation Act of the state of Washington. If one working on the tubes which generate the carrier waves in the transmitting station is engaged in interstate commerce, it would seem to logically follow that the generation by respondent of the carrier waves would constitute interstate commerce.

In Atlanta v. Atlanta Journal Co. (1938) 186 Ga. 734, 737, 198 S. E. 788, the court said:

"It appeared from the agreed statement of facts on which the case was submitted to the court without a jury that all messages sent out by plaintiff over its broadcasting apparatus travel the ether waves outside the state of Georgia, and are received in other states by what are known as receiving

VIRGINIA STATE CORPORATION COMMISSION

sets which convey the messages to listeners in other states, and said broadcasting is accomplished by the generation at the broadcasting station of electro-magnetic waves which pass through space to receiving instruments in Georgia and in other states and nations which amplify and translate them into audible sound waves, *and the essential elements in the broadcasting operation are the supply of electrical energy, the transmitter, the connecting medium or ether between the transmission and receiving instruments and the receiving mechanism.* *The entire process is one complete, united, and dependent whole, and the combination of the electrical energy, the transmitter and the connecting medium, or ether, all enter into and make up an interstate communication which is translated into a message by the receiving mechanism.*" (Italics supplied.)

As stated by Mr. Justice Stone in Fisher's Blend Station v. Washington Tax Commission, *supra* [297 U. S. 650, 80 L. ed. 956, 56 S. Ct. 608], in all essentials the procedure of broadcasting does not differ from that employed in sending telegraph and telephone messages across state lines, which is interstate commerce, in each, transmission is effected by means of energy manifestations produced at the point of reception in one state, which are generated and controlled at the sending point in another; and whether the transmission is effected by the aid of wires, or through a perhaps less understood medium, "the ether," is immaterial, in the light of those practical considerations which have resulted in the inclusion of the transmission of intelligence under the word "commerce."

See Western U. Teleg. Co. v. Pendleton (1887) 122 U. S. 347, 30 L. ed. 1187, 7 S. Ct. 1126.

In Western U. Teleg. Co. v. Foster, 247 U. S. 105, 62 L. ed. 1006, P.U.R. 1918D, 865, 868, 38 S. Ct. 438, 1 A.L.R. 1278, where there was involved an attempt by the state of Massachusetts to compel the Western Union Telegraph Company to furnish a ticker service to one Foster, a broker residing in Boston, Massachusetts, it appeared that the telegraph company received market quotations from the New York Stock Exchange and that it then telegraphed these quotations to its office in Boston, where it converted and translated the message from the Morse Code into English. Thereupon it transmitted the quotations to tickers in the offices of brokers who had been approved by the Stock Exchange. It was contended that the state of Massachusetts had the right to designate the brokers to whom the quotations were given on the ground that the translation of the Morse Code into English constituted a breaking of the original package and that thereafter all of the defendant's activities in Massachusetts constituted intrastate commerce. The Supreme Court of the United States, in rejecting this contention, ruled that the activities of the telegraph company in Massachusetts constituted interstate commerce. Mr. Justice Holmes said:

" . . . in our opinion, the transmission of the quotations did not lose its character of interstate commerce until it was completed in the brokers' offices, and that the interference with it was of a kind not permitted to the states. . . . If the normal, contemplated, and followed course is a trans-

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

mission as continuous and rapid as science can make it from exchange to broker's office, it does not matter what are the stages or how little they are secured by covenant or bond. . . . It is admitted that the transmission from New York to Massachusetts by the telegraph company was interstate commerce. If so, it continued such until it reached 'the point where the parties originally intended that the movement should finally end.' . . . If the transmission of the quotation is interstate commerce, the order in question cannot be sustained. It is not like the requirement of some incidental convenience that can be afforded without seriously impeding the interstate work. It is an attempt to affect in its very vitals the character of a business generically withdrawn from state control,—to change the criteria by which customers are to be determined and so to change the business."

This case would seem to be controlling in the case at bar. There the telegraph company in Massachusetts converted a message from code into English, which required human effort and intelligence. In the case at bar, respondent generates carrier waves essential to radio transmission, which requires machinery and human effort. In both cases, the activities mentioned were for the purpose of transmission, as continuous and rapid as science can make it, of a message from one state to another. It would seem, therefore, to follow that if the conversion of messages in the case cited from code to English constituted a part of interstate commerce, then the generation of carrier waves in the case at bar constitutes a part of interstate commerce, free from state regulation or control.

In *New England Teleph. & Teleg. Co. v. Department of Public Utilities*, 262 Mass. 137, P.U.R.1928B, 396, 406, 159 N. E. 743, 56 A.L.R. 784, it was held that an order of the Department of Public Utilities of Massachusetts requiring a telephone company engaged in transmitting intelligence by telephone throughout the United States and elsewhere in the world to become the owner of and utilize wires installed by others, and which the company may be called on to reject because incompatible with the performance of the service which it undertakes to give, places a burden upon interstate commerce. The court said:

"The telephone company contends that the action taken is an interference with interstate commerce, and is thus beyond the power of the Department. There is no dispute that telephone instruments installed in the building will be used in transmitting intelligence not only within this commonwealth but also throughout the United States and elsewhere in the world where telephonic communication is maintained through connection with the lines of the telephone company, and that while so transmitting speech the instruments and wires will form part of one whole extending from the speaker to the ultimate receiver. No discussion is necessary to show that such service is interstate in character, and that the person rendering it is engaged in interstate commerce. The orders affect interstate commerce. . . . If the action taken under authority from the state burdens interstate commerce, then it is beyond the power of the state and is invalid. . . . The orders in question impose such a burden. . . . It is manifest that expense is imposed

VIRGINIA STATE CORPORATION COMMISSION

upon the telephone company if, as is certain, it must undertake investigation of wires and wiring not selected and constructed under its direction, and be charged with disposing of them if found unsuitable. The orders, consequently, are illegal." (Italics supplied.)

It plainly appears from the facts that all the acts of respondent in connection with the generation of the electric waves in the transmitter station at Alexandria constitute component, integral, and essential parts of interstate commerce.

That some messages originate at the studio in the transmitter building at Alexandria does not alter the fact that respondent is engaged in Interstate Commerce.

The commonwealth contends that because some of the program messages have originated at the studios at the transmitter in Virginia and were of primary interest to listeners in Virginia, such facts constitute intrastate commerce. The evidence shows that only a small number of messages have originated at the studios in Virginia; only 36 for the first three quarters of 1937, whereas the station had originating in all for such period 14,097 broadcasts. In other words, that since respondent began the operation of the station at Alexandria only .002 of all the messages sent out through the WJSV transmitter have originated at a microphone in Virginia, while approximately .998 of all the messages broadcast from the transmitter station at Alexandria have originated at points outside Virginia. No political messages by candidates for political office have originated in Virginia since respondent began the operation of the

station, but even if some of the messages originating in Virginia were of primary interest to listeners in Virginia that does not alter the fact that these same messages were heard in other states and, therefore, traveled in interstate commerce.

This question would seem to be foreclosed by the decision in Fisher's Blend Station v. Washington Tax Commission, *supra*, where the messages transmitted originated in the state of Washington and which it was stipulated as a fact were heard within the state of Washington, as well as within other states. The Supreme Court of the United States held that the station's business constituted interstate commerce by reason of the fact that the same carrier waves heard in the state of Washington were heard in other states.

Whitehurst v. Grimes (1927) 21 F. (2d) 787, is a case adverse to the contention of the commonwealth. This was a case involving a suit by an amateur radio operator to enjoin the enforcement of a municipal ordinance requiring the payment of a license tax by those engaged in broadcasting. It was held that the business of radio broadcasting is interstate, though communication may be intended only for intrastate transmission, and, Congress having covered the field by appropriate legislation, a municipal ordinance imposing a license tax on all persons, firms, or corporations operating a radio broadcasting station, either commercial or amateur, is invalid as a regulation of interstate commerce. Cochran, D. J., said:

"Radio communications are all interstate. This is so, though they may be intended only for intrastate trans-

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

mission; and interstate transmission of such communications may be seriously affected by communications intended only for intrastate transmission. Such communications admit of and require a uniform system of regulation and control throughout the United States, and Congress has covered the field by appropriate legislation. It follows that the ordinance is void, as a regulation of interstate commerce." (Italics supplied.)

In Atlanta v. Southern Broadcasting Co. (1937) 184 Ga. 9, 13, 190 S. E. 594, the city of Atlanta attempted to levy a license or occupation tax of \$300 on a broadcasting station situated in Atlanta. The city contended, just as the commonwealth here contends, that inasmuch as programs originating in Atlanta were received by listeners in Atlanta and in the state of Georgia, *the station was to that extent engaged in intrastate commerce business* and, therefore, this business could be taxed by the state. The court rejected this contention and held that radio broadcasting constitutes interstate commerce whether the programs originate locally or originate in other states and are transmitted to the broadcasting station in the state by wire, where they are broadcast to listeners within and without the state, saying:

"The city concedes, under the decision rendered by the United States Supreme Court in the Fisher's Blend Station Case, *supra* [297 U. S. 650, 80 L. ed. 956, 56 S. Ct. 608], and the facts of the present case, that the plaintiff is engaged in interstate commerce; but it contends that the tax is assessed solely on the privilege of doing intrastate business, and that the intrastate

business can be separated from the interstate business and can be discontinued without withdrawing from the interstate business. In so contending, the city proceeds on the assumption that only those programs originating out of the state and sent to plaintiff by wire for broadcasting are interstate communications; and that the programs broadcast which originate locally are intrastate communications. Such assumption is erroneous. *It makes no difference where the communications originate; the question is, do the communications cross a state line?* The evidence here discloses that the communications broadcast, whether originating locally or within the state, are broadcast to listeners within and without the state. This constitutes interstate commerce. Fisher's Blend Station Case, *supra*. In so far as radio communication is concerned, at its present state of development, there can be no physical division of intrastate and interstate communications. *The transmission of the communication over the 'ether' is an indivisible movement. No state lines divide the radio waves.* Federal Radio Commission v. Nelson Bros. Bond & Mortg. Co. 289 U. S. 266, 279, 77 L. ed. 1166, P.U.R. 1933D, 465, 53 S. Ct. 627, cited approvingly in Fisher's Blend Station v. Washington Tax Commission, *supra*. It is true that the wave may be received by separate receiving sets, both within and without the state; but the communication itself is not divisible in the sense that intrastate communications may be discontinued without withdrawing from the business of broadcasting interstate communications. While the direction of the radio wave has to some extent been con-

VIRGINIA STATE CORPORATION COMMISSION

trolled, it has not been controlled to the extent that it can be made to stop at a state line and go no further, . . . or that it can be broadcast from one state into another without being intercepted and received by radio sets within the state from which the broadcast originates. 'All radio communication, anywhere in the United States, travels actually or potentially across state lines, and even if certain radio electric wave energy, through an accident or otherwise, should lose its force before crossing the state line, yet it potentially interferes with other radio communications passing interstate' (Station WBT v. Poulnot (1931) 46 F. (2d) 671), and is thus subject to regulation by Congress under the interstate commerce clause of the Constitution of the United States (Article 1, § 8, cl. 3). Technical Radio Laboratory v. Federal Radio Commission (1929) 59 App. D. C. 125, 36 F. (2d) 111; New York v. Federal Radio Commission (1929) 59 App. D. C. 129, 36 F. (2d) 115. . . . It may be questioned whether radio broadcasting can in any case be so restricted in practice as to be wholly intrastate in character. It is clear, however, that the broadcasting service of WTRL cannot be exclusively intrastate, for its location is such that its electric waves may cross state lines, and may also interfere with the reception of radio communications from other stations." (Italics supplied.) See also Atlanta v. Atlanta Journal Co. (1938) 186 Ga. 734, 198 S. E. 788.

The only case which the commonwealth cites in support of its contention that the origination of messages by respondent at its studios in Virginia is local and intrastate business which

makes it amenable to the provisions of § 3847 of the Code of Virginia, is Atlanta v. Oglethorpe University (1934) 178 Ga. 379, 173 S. E. 110, which involved the same tax as that considered in Atlanta v. Southern Broadcasting Co. (1937) 184 Ga. 9, 190 S. E. 594, and it was contended that the Oglethorpe Case was controlling, but the court in the Southern Broadcasting Case refused to follow such case, saying: "The Oglethorpe Case was not a unanimous decision and therefore is not binding authority." But the evidence in the case at bar shows that all messages originating in Virginia are for operating reasons first sent by telephone wire to the main control room of respondent at its studios in Washington, D. C., and thence back to the transmitter at Alexandria from which they are broadcast, and for this reason the transmission of such messages would constitute interstate commerce, even though the messages originated at the studio at Alexandria and were intended primarily for listeners in Virginia.

The respondent is doing only an interstate business in Virginia and, therefore, need not comply with § 3847 of the Code of Virginia.

While, with the exception of Marconi Wireless Teleg. Co. v. Commonwealth (1914) 218 Mass. 558, 567, 106 N. E. 310, Ann. Cas. 1916C, 214, hereinafter cited, no case can be found involving or considering the precise question presented in the case at bar, yet it would seem on principle and by analogy the authorities hold that respondent need not comply with such statute.

Marconi Wireless Teleg. Co. v.

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

Commonwealth, *supra*, would seem to be conclusive on the question involved in the case at bar. The commonwealth of Massachusetts sought to impose upon the company, which was a foreign corporation, an excise tax for the privilege of transacting business within the commonwealth. The court held that such tax was strictly an excise tax and in no sense a property tax and that it was a license fee exacted from foreign corporations for the privilege of doing in Massachusetts business other than interstate commerce. In holding that a foreign wireless company which maintained in Massachusetts stations at which messages to and from ships on the high seas and foreign countries were received and transmitted, but which did not transmit any local messages, was engaged wholly in foreign commerce and consequently was not subject to such tax, the court said:

"The Marconi Wireless Telegraph Company of America is organized under the laws of New Jersey. It maintains in Massachusetts near the ocean three wireless stations, each consisting chiefly of a high pole having at the top a wire or wires with bare ends from which are sent through and taken from the air currents of electricity, whereby messages are transmitted and received. Connected with this apparatus are rooms similar to ordinary telegraph stations, for use of the wireless telegraph operators. At each station it transmits and receives wireless messages for hire to and from ships on the high seas and foreign countries. It neither transmits nor receives any messages whatever over land or in or through this commonwealth. It has no property in the commonwealth, ex-

cept that above described. *It is plain that this petitioner is engaged exclusively in foreign commerce.* Transmission of intelligence by means of the electric telegraph has been held to be commerce. . . . The same principle governs the transmission of ideas, thought, and news by the recently discovered instrumentality which has harnessed in its service 'the sightless couriers of the air' to perform between its stations without visible highway the functions previously executed by electricity only when confined to wire as a conducting medium. *This petitioner transacts no business of a domestic or local nature, except such as is inseparable from and necessarily incidental to its foreign commerce.* Hence it is not within the purview of the statute." (Italics supplied.)

Ozark Pipe Line Corp. v. Monier (1925) 266 U. S. 555, 69 L. ed. 439, 45 S. Ct. 184, would also seem to be conclusive authority to the effect that respondent need not comply with the laws of Virginia respecting foreign corporations. In that case it was held that the maintenance by a foreign corporation, operating a pipe line to carry crude oil in interstate commerce across a state, of an office within its limits where its accounts are kept, and from which it purchases supplies, employs labor, and enters into contracts, and of pumping stations to accelerate the passage of oil, and of automobiles and other property, and which maintains telegraph and telephone lines exclusively in furtherance of its interstate business, is doing an interstate business and need not comply with the laws of the state requiring foreign corporations doing an intrastate business to domesticate and is not subject to

VIRGINIA STATE CORPORATION COMMISSION

the payment of an annual license tax to the state. See *Southern P. Co. v. Gallagher* (1939) 306 U. S. 167, 83 L. ed. 586, 59 S. Ct. 389, where the Ozark Pipe Line Corporation Case is quoted approvingly and distinguished from the two cases upon which the commonwealth relies, viz., *Utah Power & Light Co. v. Pfost* (1932) 286 U. S. 165, 76 L. ed. 1038, 52 S. Ct. 548 and *Coverdale v. Arkansas-Louisiana Pipe Line Co.* (1938) 303 U. S. 604, 82 L. ed. 1043, 1047, 58 S. Ct. 736, on the ground that the acts sought to be taxed in such cases were taxable intrastate events separate and apart from interstate commerce.

It is well settled that telegraph and telephone companies engaged in the transmission of messages to and from another state or country are engaged in interstate or foreign commerce, as the case may be, and hence cannot be excluded from doing business in the state nor burdened with conditions on the right to do such business *and the transmission of messages by radio is held to be on the same basis as telegraphic and telephonic communications.*

In Fletcher's Cyclopedie Corporations (Perm. Ed.) § 8408, it is said:

"Communications by telegraph or telephone between different states constitute interstate commerce. . . . The transmission of messages by means of wireless telegraphy is held to be on the same basis as telegraphic and telephonic communications. (*Marconi Wireless Teleg. Co. v. Commonwealth* (1914) 218 Mass. 558, 106 N. E. 310, Ann. Cas. 1916C, 214). *Consequently telegraph and telephone companies engaged in the transmission of messages to and from another state or*

country are engaged in interstate or foreign commerce, as the case may be, and hence cannot be excluded from doing business in the state nor burdened with conditions on the right to do such business. . . . Radio transmission is recognized as a form of interstate commerce and the regulation of radio communications is a valid exercise of the power of Congress under the commerce clause." (Italics supplied.)

The commonwealth practically rests its entire case upon *Utah Power & Light Co. v. Pfost, supra*, and *Coverdale v. Arkansas-Louisiana Pipe Line Co., supra*, in order to support its contention that because of the activities of respondent in Virginia in generating such electro-magnetic current or carrier waves, it must comply with the laws of Virginia requiring foreign corporations doing an intrastate business in Virginia to domesticate. Neither of these cases supports the contention of the commonwealth, and each is easily distinguishable from the case at bar.

Utah Power & Light Co. v. Pfost, supra, arose out of a suit to enjoin the enforcement of an Idaho statute levying a license tax on the "manufacture, generation, or production, within the state, for barter, sale, or exchange, of electricity." The Utah Power & Light Company, which brought the suit, was engaged in the manufacture or generation of electricity from the energy of a waterfalls in Idaho and transmitted that electricity almost simultaneously to customers outside the state. In other words, it sold the electricity manufactured in the state to customers outside the state. The power company questioned the validity of the tax on the ground that it was engaged solely

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

in interstate commerce and, therefore, the state could not impose a license tax. The Supreme Court of the United States, however, ruled that the power company was not engaged solely in interstate commerce; that before the electricity was transmitted it was manufactured or generated; and, that this constituted intrastate commerce which could be taxed by Idaho. The Pfost Case, therefore, simply involved the case of a manufacturer engaged in the business of manufacturing electricity for sale as electricity, who contended it was engaged in interstate commerce because the transmission of his product in interstate commerce was simultaneous with its manufacture. The Supreme Court of the United States, however, held that the business of the Utah Power & Light Company was the manufacture or generation of electricity, and that manufacturing being entirely intrastate, it could be taxed, and the court simply applied the well-established doctrine (citing numerous authorities) that where a taxpayer is engaged in the manufacture of products and in shipping those products in interstate commerce, the manufacture is a distinct act from the transmission and is not itself an act in interstate commerce and, therefore, is subject to state taxation. The fact that the article manufactured was thereafter transmitted in interstate commerce was held not to be determinative of the question whether the entire business of the taxpayer was an interstate commerce business *for, of course, the manufactured article could have been transmitted wholly intrastate.* The court, however, indicated that if the Utah Power & Light Company had been merely engaged in the business of

transmission, the result would have been different. It said, at p. 180 of 286 U. S.:

"We think, therefore, it is wholly inaccurate to say that appellant's entire system is purely a transferring device. On the contrary, the generator and the transmission lines perform different functions, with a result comparable, so far as the question here under consideration is concerned, to the manufacture of physical articles of trade and their subsequent shipment and transportation in commerce. . . . We are satisfied, upon a consideration of the whole case, that the process of generation is as essentially local as though electrical energy were a physical thing, and to that situation we must apply, as controlling, the general rule that commerce does not begin until manufacture is finished, and hence the commerce clause of the Constitution does not prevent the state from exercising exclusive control over the manufacture. . . . 'Commerce succeeds to manufacture, and is not a part of it.' . . . Without regard to the apparent continuity of the movement, *appellant, in effect, is engaged in two activities, not in one only.* So far as it produces electrical energy in Idaho, its business is purely intrastate, subject to state taxation and control. In transmitting the *product* across the state line into Utah, appellant is engaged in interstate commerce, and state legislation in respect thereof is subject to the paramount authority of the commerce clause of the Federal Constitution." (Italics supplied.)

But in the case at bar, respondent's system *is* a purely transferring or transmitting device. Its business is that of transmitting messages across

VIRGINIA STATE CORPORATION COMMISSION

state lines. It is not engaged in the business of generating electricity for sale. The electricity used by respondent in the operation of Station WJSV is purchased from the local power company and used in the transmitting station for driving motors therein to furnish power to the generator, and this power to the generator is inserted into vacuum tubes arranged in suitable circuits, which generate the electric current known as "radio-frequency current" or "carrier waves." Its generation of carrier waves is purely a device to transport or transfer those messages. The Pfost Case, *supra*, is clearly distinguishable from the case at bar. In that case the business of the power company was the manufacturing of electricity which was sold as such. In the case at bar, on the other hand, respondent's business is the transmission of program messages in interstate commerce and the generation of electrical energy in the form of carrier waves is in furtherance of and, in fact, essential to this interstate transmission. The Pfost Case, therefore, is readily reconciled with the cases, like the Puget Sound Stevedoring Case, hereinbefore referred to [302 U. S. 90, 82 L. ed. 68, 58 S. Ct. 72], which demonstrate that respondent's activities are in interstate commerce.

The case of Coverdale v. Arkansas-Louisiana Pipe Line Co. (1938) 303 U. S. 604, 82 L. ed. 1043, 1046, 58 S. Ct. 736, also relied upon by the commonwealth in support of its contention that because of the activities of respondent in generating carrier waves in Virginia, it must comply with the laws of Virginia requiring foreign corporations doing an intrastate business in Virginia to domesticate, is also

clearly distinguishable from the case at bar. In that case there was involved the validity of a Louisiana statute imposing a privilege tax on the production of mechanical power for sale or use. The act provided for a license tax to be paid by everyone engaged within the state in the business of manufacturing or generating electricity for heat, light, or power (§ 1), or of selling electricity not manufactured or generated by him or it (§ 2), and § 3 provided that every person, firm, or corporation, engaged within the state in any business, which uses in the conduct of that business electrical or mechanical power of more than 10 horsepower and does not procure all the power from a taxpayer subject to § 1 or 2, "shall be subject to the payment of an excise, license, or privilege tax of \$1 per annum for each horsepower of capacity of the machinery or apparatus, known as the 'prime mover,' operated by such person, firm, corporation, or association of persons, for the purpose of producing power for use in the conduct of such business or occupation." It was sought to impose the tax upon a corporation which was engaged in the interstate delivery of gas through a pipe line. The natural gas could not be transmitted through the pipe lines which extended from the state of Louisiana into other states, unless it was delivered into the pipe line at pressure higher than that at which it came from the wells. Accordingly the corporation maintained in Louisiana at the point of intake into the line, its station where there were located 10 pumps, or natural gas compressors, which operated to increase the pressure of the gas to the required extent. These compressors were di-

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

rectly connected to 10 4-cylinder 1,000 horsepower internal combustion gas burning engines. There were also two 250 horsepower gas burning engines for general power service at the station. The tax involved was laid on the privilege of operating these 12 gas engines known as "prime movers," and was imposed at the rate of \$1 per horsepower capacity of the engine, i.e., a total tax of \$10,500. The court upheld the validity of the tax, and Mr. Justice Reed, delivering the opinion of the court, said:

"The question is whether a state statute imposing a privilege tax on the production of mechanical power contravenes the interstate commerce clause in so far as it is applied to an engine used to supply mechanical power to a compressor which increases the pressure of natural gas and thus permits it to be transported to purchasers in other states. . . . First. The character of the tax act under consideration is clear. It is a revenue measure obtaining funds by levying a privilege tax on those generating or selling electricity in Louisiana. . . . We regard the tax as one upon the privilege of producing the power. Second. The language of the state statute makes it quite certain that *this privilege tax falls alike on those engaged in interstate or in intrastate commerce, or in both*. While a *privilege tax* by a state for engaging in interstate business has frequently met the condemnation of this court as a regulation of commerce, privilege taxes for 'carrying on a local business,' even though measured by interstate business, have been sustained. . . . *The present case falls well within the line of state tax authority.* . . . Privileges closely con-

nected with the commerce may be regarded as distinct for purposes of taxation. So, local privilege taxes on storage in transit, compressing or dealing in cotton, already moving in its interstate journey from plantation to mill, are validated as imposed upon operations in connection with a commodity withdrawn from the transportation movement. *Federal Compress & Warehouse Co. v. McLean* (1934) 291 U. S. 17, 78 L. ed. 622, 626, 54 S. Ct. 267. . . . And similar taxes are upheld for the privilege of mining ores or producing gas, notwithstanding the 'practical continuity' of the taxed productive operation and the interstate movement. . . . In *Utah Power & Light Co. v. Pfost* (1932) 286 U. S. 165, 76 L. ed. 1038, 52 S. Ct. 548, *an Idaho statute taxing the generation of electricity at so much a kilowatt hour was upheld because a difference was perceived between the conversion of the mechanical energy of falling water into electrical energy and the transportation of the latter. The tax here imposed on the operation of the machinery is of the same type.* The power used by the appellee is obtained from internal combustion engines which transform the potential energy of natural gas into mechanical power, transmitted by piston and piston rod from the combustion chamber of the engine to the compression chamber of the compressor. While the engine and compressor units are assembled on a common bed plate, their functions are thus seen to be as completely separate as if they operated through belting. The engine is the 'prime mover' of the tax act, producing power to drive the compressor. *While the use of the engine for the*

VIRGINIA STATE CORPORATION COMMISSION

production of power synchronizes with the transmission of that power to the compressor, production occurs prior to transmission. It is just as much local as the generation of electrical power. . . . Third. To determine whether this challenged state tax enactment is invalid as in interference with interstate commerce under the decisions of this court, the connection of the privilege taxed with interstate commerce has been considered. Other factors also show that the tax here does not interfere with interstate commerce. *The tax is without discrimination in form or application as between inter- and intra-state commerce and it cannot be imposed by more than one state.* The course of interstate commerce is clogged by taxes designed or applied so as to hamper its free flow. Section three, however, bearing equally on all use, is only complementary to the taxes of sections one and two. . . . It bears generally on all use of power and is not discriminatory. It obviously adds to the cost of the interstate commerce. But increased cost alone is not sufficient to invalidate the tax as an interference with that commerce." (Italics supplied.)

Coverdale v. Arkansas-Louisiana Pipe Line Co. supra, involved a tax imposed upon an operation constituting an intrastate enterprise in Louisiana. That such a tax is legal was not only held in that case, but also in *Southern P. Co. v. Corbett* (1938) 23 F. Supp. 193, where it was held that the enforcement of the State Use Tax Act of California by the imposition of such tax on storage use of materials solely for a railway company's current repairs and renewals and necessary

extensions of its intermingled interstate and intrastate enterprise and plant, though such use is use in interstate commerce did not constitute a direct or undue burden on its interstate business and consequently would not be enjoined. The court in that case referred to *Coverdale v. Arkansas-Louisiana Pipe Line Co. supra*, and pointed out that the state levied an occupation tax on an intrastate activity and not on an interstate activity. When this case came before the Supreme Court of the United States it was affirmed. See *Southern P. Co. v. Gallagher*, decided January 30, 1939, 306 U. S. 167, 83 L. ed. 586, 59 S. Ct. 389, 394. The court pointed out that the activities in the Coverdale Case, *supra*, constituted intrastate commerce, and, therefore, were subject to taxation by the state of Louisiana and distinguished the two lines of authority relative to taxation on commerce, stating that the first line makes it quite clear that a state tax upon the privilege of operating in or upon carrying on interstate commerce is invalid; while the second line of authority supports the view that a state tax on intrastate events, separate and apart from interstate commerce, is not invalid. It was pointed out that the tax imposed upon the production of power by the use of which compressors drove natural gas in interstate commerce is valid as such production covered a taxable event distinct from its consumption in commerce. But the court distinguished the taxation of intrastate activities from the decisions of the court holding that a foreign corporation doing business in a state constituting interstate commerce need not comply with the statutory regula-

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

tions requiring foreign corporations doing business in a state to secure a permit or certificate of authority to do business in that state, saying:

"In the Ozark Case [(1925) 266 U. S. 555, 69 L. ed. 439, 45 S. Ct. 184] Missouri sought to justify a franchise tax on a company engaged in the operation of an interstate pipeline by suggesting the tax was upon certain *intrastate events, such as operation of communications, repair, and purchase of supplies*. The tax was forbidden because on the privilege of doing an exclusively interstate business. The opinion is to be read in the light of the statement by the court of its interpretation of the facts and legal deductions which control its decision. The Missouri Act called for a franchise tax of a percentage of the par of its stock, apportioned to its assets in that state. This court said that 'the tax is one upon the privilege or right to do business,' and as the taxpayer 'is engaged only in interstate commerce' the tax 'constitutionally cannot be imposed.' There was then added this paragraph: 'The maintenance of an office, the purchase of supplies, employment of labor, maintenance and operation of telephone and telegraph lines and automobiles, and appellant's other acts within the state, were all exclusively in furtherance of its interstate business; and the property itself, however extensive or of whatever character, was likewise devoted only to that end. They were the means and instrumentalities by which that business was done and in no proper sense constituted, or contributed to, the doing of a local business. The protection against imposition of burdens upon interstate com-

merce is practical and substantial and extends to whatever is necessary to the complete enjoyment of the right protected.' This court pointed out that the corporation had a license to engage exclusively in interstate business. The language just quoted shows that this court interpreted the transactions in Missouri as merely a part of the interstate commerce and the tax on the franchise an interference therewith because a tax directly upon it. ' . . . nothing was done in Missouri except in furtherance of transportation.' It was this conclusion of the court on the factual situation which brought about the Ozark Pipe Line Corporation Decision. . . . Since the incidence of the California tax as here interpreted is upon events outside of interstate commerce, the Ozark Pipe Line Corporation opinion is not applicable. There the Missouri tax was upon activities found wholly interstate." (Italics supplied.)

Southern P. Co. v. Gallagher, *supra*, demonstrates that Coverdale v. Arkansas-Louisiana Pipe Line Co. *supra*, and Utah Power & Light Co. v. Pfost (1932) 286 U. S. 165, 76 L. ed. 1038, 52 S. Ct. 548, only held that a state tax upon activities in the state which constitute intrastate commerce were not violative of the provisions of the commerce clause of the Federal Constitution and have no bearing on the question now under consideration.

Radio is national in character and admits of only one system of regulation. Congress has taken jurisdiction over the entire field of radio communications and broadcasting, including the activities of respondent now in question. Although the Federal Communications Act contains no provi-

VIRGINIA STATE CORPORATION COMMISSION

sion in respect to the compliance by a foreign corporation engaged in broadcasting with statutes imposing conditions upon a foreign corporation doing business in the state, the case at bar is governed by the rule that even in the absence of congressional legislation on the subject the states are without power to regulate subjects of interstate or foreign commerce which are national in nature and admit of only one system or plan of supervision.

Radio is national in character and requires uniformity of regulation. Congress has fully legislated in respect to the manner in which and by whom it shall be carried on. See *Whitehurst v. Grimes* (1927) 21 F. (2d) 787; *Station WBT v. Poulnot* (1931) 46 F. (2d) 671; *United States v. American Bond & Mortg. Co.* (1929) 31 F. (2d) 448; *General Electric Co. v. Federal Radio Commission*, 58 App. D. C. 386, P.U.R.1929D, 321, 31 F. (2d) 630.

In *General Electric Co. v. Federal Radio Commission, supra*, at p. 328 of P.U.R.1929D, it is said:

" . . . under the commerce clause of the Constitution (Art. 1, § 8, cl. 3), Congress has the power to provide for the reasonable regulation of the use and operation of radio stations in this country, and to establish agencies such as the Federal Radio Commission to give effect to that authority. Without such national regulation of radio, a condition of chaos in the air would follow, and this peculiar public utility, which possesses such incalculable value for the social, economical, and political welfare of the people, and for the service of the government, would become practically useless. Davis,

30 P.U.R.(N.S.)

Law of Radio, p. 71; Zollman, Law of the Air, pp. 102, 103." (Italics supplied.)

In *United States v. American Bond & Mortg. Co. supra*, 31 F. (2d) at p. 455, it is said:

"The contention that the act, in bringing the broadcasting stations themselves under national control, transcends the power of Congress, overlooks the fundamental nature of this species of commerce. The transmission is brought about by concert of action on the part of broadcaster and receiver. The regulation is for the purpose, not only of protecting the broadcaster in his operations, but also for the purpose of promoting the interests of the public, who are obliged to submit to whatever is sent out for their reception. The authority of Congress extends to every instrumentality or agency by which commerce is carried on, and the full control of Congress of the subjects committed to its regulation is not to be denied or thwarted by the commingling of interstate and intrastate operations. The execution by Congress of its constitutional power to regulate interstate commerce is not limited by the fact that intrastate transactions may have become so interwoven therewith that the effective government of the former incidentally controls the latter. This conclusion necessarily results from the supremacy of the national power within its appointed sphere. . . . The necessary limitation upon the number of stations, the interferences resulting from uncontrolled broadcasting in the same channel, and the interests of the receiving public require that stations shall be classified, the nature of the service rendered

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

by each class prescribed, wave lengths assigned, the location of stations determined, apparatus supervised—in short, that transmission be brought under a control which, instead of permitting the benefit to the public to be destroyed by conflict and confusion, will make it as great as possible. In asserting the unreasonableness of the control assumed by Congress, defendants stress the rights of the broadcaster. The emphasis should be laid on the receiving public, whose interest it is the duty of the government, *parens patriae* to protect." (Italics supplied.)

In Dill on Radio Law, pages 9, et seq., it is said:

"In 1933, the United States Supreme Court passed on the constitutionality of the Radio Act of 1927. Chief Justice Hughes covered every phase of the question in a long opinion (*Federal Radio Commission v. Nelson Bros. Bond & Mortg. Co. (Station WIBO)*), 289 U. S. 266, 77 L. ed. 1166, P.U.R.1933D, 465, 53 S. Ct. 627) and declared: 'No state lines divide the radio waves, and *national regulation* is not only appropriate but essential to the efficient use of radio facilities. . . . Those who operated broadcasting stations had no right superior to the exercise of this power of regulation.' Nor does the fact that some radio communication is wholly intrastate prevent the Federal authority from controlling the operation of the radio apparatus used. Radio engineers have proved that the interference range of radio waves extends far beyond their communication range. In any systematic arrangement of the use of radio frequencies for interstate and international use, the regulation of the local station with but little pow-

er is nevertheless a necessary part of the plan in order not to cause interference with stations of higher power and greater range. This conflict immediately makes interstate regulation controlling. . . . It is clear that both Congress and the courts have entirely overridden all attempts by state or local governments to regulate radio communications of any kind. Not even the police powers can be invoked to the extent of interfering with radio operations as such. A state may not even tax the incomes of radio stations. (*Fisher's Blend Station v. Washington Tax Commission* (1936) 297 U. S. 650, 80 L. ed. 956, 56 S. Ct. 608.) Neither states nor cities may tax receiving sets or place any burdens on radio communication service. (*Whitehurst v. Grimes* [1927] 21 F. (2d) 787; *Station WBT v. Poulnot* [1931] 46 F. (2d) 671.) *Congress alone has the power to regulate radio operations.*" (Italics supplied.)

In *Southern Broadcasting Corp. v. Carlson* (1937) 187 La. 823, 175 So. 587, it was held that under the Federal Communications Act of 1934 a state court cannot, without the approval of the Federal Communications Commission, order a transfer of a license to operate a radio broadcasting station or of any right granted thereunder.

Every new decision in cases involving the question of Federal and state regulation makes it more and more evident that radio regulation is entirely Federal. The courts are constantly going further and further to show that a state can practically do nothing to interfere with radio as interstate commerce. In other words, radio in the United States is subject to the direct

VIRGINIA STATE CORPORATION COMMISSION

control of the national government, which is in accord with the theory of radio control in all other nations. Although Congress has provided for the private ownership of American radio stations, they are at all times subject to the control of the Federal government, even to the extent of being taken over and operated by government officials, subject always to the protection of the Constitution as to being taken only by due process of law. Radio can never be purely domestic or intrastate. It is nation wide and worldwide.

In *National Broadcasting Co. v. New Jersey Pub. Utility Comrs.* 25 F. Supp. 761, 27 P.U.R. (N.S.) 314, 315, decided by the district of New Jersey on December 23, 1938, an action was brought by the National Broadcasting Company, Inc., against the Board of Public Utility Commissioners of New Jersey and others to restrain them from proceeding under purported authority of a New Jersey statute regulating radio broadcasting. It appeared that on May 2, 1938, there was issued to the broadcasting company by the Federal Communications Commission, pursuant to the Federal Communications Act of 1934, a construction permit authorizing it to erect an additional radio transmitter at Bound Brook, N. J. One of the purposes of the transmitter was to transmit broadcasting programs to the city of New York and vicinity in interstate commerce. On May 16, 1938, the Board of Public Utility Commissioners of New Jersey by letter directed the plaintiff to make application pursuant to the Radio Broadcasting Act, Title 48, Chap. 11 of the Revised Statutes of New Jersey, providing: "No

radio broadcasting station or transmitter shall be constructed or operated in this state until a certificate of public convenience and necessity therefor shall have been granted by the Board of Public Utility Commissioners, . . ." The plaintiff broadcasting company declined to comply with the request of the Board of Public Utility Commissioners on the grounds that *it already had the approval and authorization of the Federal Communications Commission, that the defendant Board was without jurisdiction in the matter, and the statute of New Jersey had been superseded by the Act of Congress of 1934 and was invalid.* On September 14, 1938, the defendant Board pursuant to the state statute issued an order requiring the plaintiff to show cause before it on November 1, 1938, why the plaintiff should not cease and desist in the erection, construction, or operation of the broadcasting transmitter in broadcasting service or otherwise. The court, in issuing a permanent injunction restraining the defendant from proceeding against the plaintiff under the New Jersey Radio Broadcasting Act, said:

"This action is to restrain the Board of Public Utility Commissioners permanently from taking any action or proceedings under the statute and its order to cease and desist, and to restrain the attorney general from bringing actions for restraint or for fines or penalties. It is contended that the Radio Broadcasting Act of the state of New Jersey is unconstitutional in that it interferes with interstate commerce, and that Congress has preempted the field of radio regulation by the act known as the 'Communications Act of 1934' and its amendments, . . .

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

leaving nothing for the state to control within this field. The plaintiffs not only ask that the state statute be declared unconstitutional as applied to it, but further pray that each and every part thereof be declared unconstitutional. . . . The only difference between the parties is whether or not the state act should be declared wholly unconstitutional in this suit. The plaintiff contends this type of regulation is exclusively within the power of Congress. The defendants urge that the state act is not unconstitutional in so far as it applies to such radio operation as might be considered strictly intrastate commerce. This court is not called upon to decide this difference because the defendants do not question that this plaintiff is or will be engaged at the station in question in the radio field on a scale that constitutes interstate commerce. They admit that broadcasting constitutes interstate commerce as to transmission and reception when the radius extends beyond state lines. *United States v. American Bond & Mortg. Co.* (1929) 31 F. (2d) 448, affirmed (1931) 52 F. (2d) 318, P.U.R. 1932A, 522, certiorari denied (1932) 285 U. S. 538, 76 L. ed. 931, 52 S. Ct. 311. Hence, this plaintiff is subject to regulation only by the Federal Communications Act and not by the New Jersey Radio Broadcasting Act, and a permanent injunction will issue restraining the defendants from proceeding against the plaintiff under the latter state statute." (Italics supplied.)

See, also, *Spriggs v. Bell Teleph. Co.* (Pa. 1934) 3 P.U.R. (N.S.) 42.

It is apparent from the provisions of the Federal Communications Act of 1934, that Congress has taken juris-

diction over the entire field of radio communications and broadcasting, including the activities of respondent now in question. It has given the Communications Commission the power and authority to regulate radio communication, which is defined in § 3 (b) of the act as "the transmission by radio of writing, signs, signals, pictures, and sounds of all kinds, *including all instrumentalities, facilities, apparatus, and services* (among other things, the forwarding and delivery of communications) *incidental to such transmission,*" and to regulate "broadcasting," which is defined in § 3(o) of the acts as "the dissemination of radio communications intended to be received by the public." Such authority necessarily includes the authority to regulate the generation of carrier waves because the generation of carrier waves is a service incidental to the dissemination of radio communications and there could be no radio communication without such carrier waves. Similarly, the vacuum tubes and other apparatus by which the carrier waves are generated are instrumentalities incidental to the transmission of radio communications. Radio transmission must be licensed by the Federal government and its operators are required to be similarly licensed.

The Federal Communications Commission has exercised the authority vested in it by granting to respondent a license to operate its transmitter at Alexandria, Virginia, "for the purpose of broadcasting," which license authorized the respondent to broadcast messages originating in Virginia, as well as outside of Virginia, and also authorizes the respondent to generate carrier waves because broadcasting, as

VIRGINIA STATE CORPORATION COMMISSION

has already been seen, by definition, includes all services incidental to transmission by radio and the generation of carrier waves is such a service. Indeed the applications of respondent for licenses indicated and the licenses granted to respondent specified the type of vacuum tubes which were to be used at the transmitter and which generate the carrier waves. There can be no doubt, therefore, but that respondent has been authorized by the Federal Communications Commission to generate the carrier waves at the transmitter in Virginia and transmit messages originating in Virginia.

While the Federal Communications Act of 1934 contains no provisions requiring a foreign corporation engaged in operating a broadcasting station in a state other than that by which it was created to comply with the laws of such state respecting foreign corporations doing business therein, it would seem that the case at bar falls within the rule that even in the absence of congressional legislation on the subject, the states are without power to regulate subjects of interstate or foreign commerce which are national in nature and admit of only one system or plan of supervision, and that this rule should be invoked in holding inapplicable a statute requiring a foreign corporation seeking to operate a broadcasting station in a state other than that by which the corporation was created to obtain a certificate of authority as a prerequisite to doing business in the state.

See *Kelly v. Washington ex rel. Foss* (1937) 302 U. S. 1, 82 L. ed. 3, 58 S. Ct. 87, holding that state regulation affecting interstate and foreign commerce is not permissible even in

the absence of Federal action, if the subject is one demanding uniformity of regulation; *Western U. Teleg. Co. v. Pendleton* (1887) 122 U. S. 347, 30 L. ed. 1187, 7 S. Ct. 1126; *Oregon-Washington R. & Nav. Co. v. Washington* (1926) 270 U. S. 87, 70 L. ed. 482, 46 S. Ct. 279; *Western U. Teleg. Co. v. Boegli* (1920) 251 U. S. 315, 64 L. ed. 281, 285, 40 S. Ct. 167; *Postal-Teleg. Cable Co. v. Warren-Godwin Lumber Co.* (1919) 251 U. S. 27, 64 L. ed. 118, 40 S. Ct. 69; *Gardner v. Western U. Teleg. Co.* (1916) 145 C. C. A. 339, 231 Fed. 405; *New York Central Securities Corp. v. United States* (1931) 54 F. (2d) 122; *Thompson v. McDonald* (1938) 95 F. (2d) 937.

In *New York Central Securities Corp. v. United States*, *supra*, 54 F. (2d) at p. 131, it is said: "When Congress has entered upon a field directly related to interstate commerce, restrictions imposed by the states that directly affect the Federal regulation are of no further validity."

In *Thompson v. McDonald*, *supra*, 95 F. (2d) at p. 943, the court said: "Congress, under its power to regulate interstate commerce, may occupy the entire field or it may limit its regulation, and when it does occupy the entire field, then state regulations by a Commission are void. But if Congress occupies only a limited field, then, such laws as the state may enact, within its police power, for the protection of its highways and the safety of the public thereon are valid, provided the acts of the legislature are not in direct conflict with the act of Congress. Congress is not required to occupy the entire field, and until it does so occupy the entire field, the states

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

have a large area over which they may exercise the power appropriate to their jurisdiction. *This rule does not apply to the subject of interstate commerce demanding uniformity of regulation.* With reference to that situation, the state is without power because the Constitution itself occupies the field in that class of cases, even though there be no Federal legislation." (Italics supplied.)

Foreign telegraph companies are especially protected by Act of Congress of July 24, 1866, 14 U. S. Stats. at L. p. 221, Chap. 230 (47 USCA 1, et seq.) giving them the right to construct and operate lines through and over any portion of the public domain of the United States and over and along any of the military or post roads of the United States on evidence of acceptance of its terms under specified restrictions, etc., and it is held thereunder that no state has the power in such cases to exclude such corporations from the right to do business within the state or to impose conditions on the right to do such business other than by proper exercise of the police power.

See Fletcher, Cyclopedie Corporations (Perm. Ed.), § 8408, citing: American U. Teleg. Co. v. Western U. Teleg. Co. (1880) 67 Ala. 26; Western U. Teleg. Co. v. Superior Court (1911) 15 Cal. App. 679, 115 Pac. 1091, 1100; Essex v. New England Teleg. Co. (1915) 239 U. S. 313, 60 L. ed. 301, 36 S. Ct. 102, modifying (1913) 206 Fed. 926.

As the Act of Congress of 1866 did not touch the subject matter of the delivery of messages, it was held that it did not prevent a state from legislating on that subject, but Congress by

an Act of June 18, 1910, 36 Stat. 539, placed telegraph, telephone, and cable companies under the direct supervision of the Interstate Commerce Commission and made them subject to the same rules, regulations, restrictions, and penalties that are imposed on common carriers, and it was held that thereby Congress occupied the entire field of the interstate business of telegraph and telephone companies and wholly excluded and superseded or suspended state laws and policies relative thereto. See 15 Corpus Juris Secundum, § 81, p. 421

In Luckenbach Steamship Co. v. Denney (1929) 152 Wash. 548, 557, 278 Pac. 419, there was involved a suit to enjoin the Department of Public Works from enforcing against the respondent the provisions of the state law regulating wharfingers and warehousemen. It appeared that respondent was a Delaware corporation engaged in intercoastal and interstate commerce carrying freight between the Pacific coast and the Atlantic and Gulf coasts. Its pier in navigable waters at the port at Seattle was used only in interstate commerce carrying business, and rates and charges made for its wharfage were rates and charges affecting only interstate commerce. It was held that the state was unauthorized to require the company to file annual reports and pay fees in connection therewith and furnish statistical data required by the Washington statute, since the attempted regulation would be a direct burden on interstate commerce, notwithstanding that the company's pier performed such public service as constituted it in a way a public dock, as the field of operation over the pier had been entire-

VIRGINIA STATE CORPORATION COMMISSION

ly occupied by Federal legislation and regulations, since, if the Federal interstate commerce regulations did not apply to the steamship company as a wharfinger, the Shipping Board Act of Congress 1916, 46 USCA §§ 817-820, did. The court said:

"It is fundamental that the authority to regulate and control interstate commerce cannot be divided, and that the authority of the United States is absolute. . . . That court (the United States Supreme Court) has also said that a corporation of one state may go into another without obtaining the leave or license of the latter for all the legitimate purposes of such commerce, and any state statute obstructing or burdening the exercise of this privilege is void under the commerce clause. *Dahnke-Walker Milling Co. v. Bondurant* (1921) 257 U. S. 282, 66 L. ed. 239, 42 S. Ct. 106. In the last-cited case the court also said: 'Such commerce is not confined to transportation from one state to another, but comprehends all commercial intercourse between different states and all the component parts of that intercourse.' Under the conditions existing in this case, one of the 'component parts' of the interstate commerce conducted by respondent is handling goods upon its own dock when carried in interstate commerce. . . . We are satisfied that the trial judge was right in holding that the attempted regulation here complained of would be a direct burden upon interstate commerce, and cannot be sustained under the decisions of the United States Supreme Court, by which such cases are governed. Respondent also cites us to the Shipping Board Act of Congress of 1916, USCA Title 46, §§ 817-820.

By § 804, *Id.*, the United States Shipping Board was created. By § 817, *supra*, every common carrier by water in interstate commerce is required to establish, observe, and enforce just and reasonable rates, fares, charges, classifications, and tariffs, and just and reasonable regulations and practices relating thereto; and to file with the shipping board and keep open to public inspection in the form and manner and within the time prescribed by the board, the maximum rates, fares, and charges for or in connection with transportation between points on its own route. By the same section, the shipping board was given power when it finds any rate, fare, charge, classification, tariff, regulation, or practice to be unjust or unreasonable, to prescribe, and by order enforce, a just and reasonable maximum rate, fare, charge, classification, tariff, regulation, or practice. Section 820, *supra*, provides for the compulsion of filing reports and accounts with that board and penalties for violation of the provisions of that section. It is thus manifest that, if the Federal interstate commerce regulations do not apply to respondent as a wharfinger, the shipping board legislation does. *The field is therefore entirely occupied by Federal legislation and regulations. In such case it is well settled that the state is deprived of any authority to regulate such utilities.*" (Matter in parenthesis and italics supplied.)

That the regulation of radio communication is a subject requiring uniformity of regulation is apparent from what has been heretofore said and from the authorities.

In *Whitehurst v. Grimes* (1927) 21 F. (2d) 787, the court said: "Such

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

(radio) communications admit of and require a uniform system of regulation and control throughout the United States, and Congress has covered the field by appropriate legislation." (Word in parenthesis and italics supplied.)

In Station WBT v. Poulnot (1931) 46 F. (2d) 671, 675, there was involved a state statute imposing a license tax for the privilege of using radio receiving sets. The court held the statute unconstitutional, saying:

"The only question . . . is whether the state has the right to lay a tax upon these instruments of interstate commerce. Under the numerous decisions of the Supreme Court there can be only one answer. Those decisions hold that Congress has the power to regulate interstate commerce; that that power is necessarily exclusive whenever the subjects are national in their character or admit only of one uniform system or plan of regulation; and that where the power of Congress to regulate is exclusive, the failure to regulate indicates the will that it shall be left free from any restrictions or impositions; and any regulation of the subject by a state, except in matters of local concern, is repugnant to such freedom, and that no state can compel a party, individual, or corporation to pay for the privilege of engaging in interstate commerce, and that a state has no power to lay any burden in any form, by taxation or otherwise, upon interstate commerce or its instrumentalities. . . . Nor can it be sustained as a matter of local regulation, for the subject is national, and admits only of one uniform system or plan of regulation." (Italics supplied.)

The commonwealth in opposition to

the contention of respondent that because radio constitutes interstate commerce and is national in character and admits of only one system or plan of supervision and is a subject demanding uniformity of regulation, and Congress by the passage of the Communications Act of 1934 has assumed full control of radio operations, the requirements embodied in § 3847 of the Code of Virginia are inapplicable to the activities of respondent carried on in its transmitter station at Alexandria, cites and quotes from Federal Compress & Warehouse Co. v. McLean (1934) 291 U. S. 17, 78 L. ed. 622, 625, 54 S. Ct. 267, which it says "completely disposes of respondent's contention." An examination of that case shows that it in no wise supports the contention of the commonwealth, but on the other hand is authority for the contention of respondent. In that case there was involved a Mississippi statute exacting an annual license tax for the privilege of operating a cotton compress, which was graduated according to the number of bales compressed per annum, and which also exacted a similar additional tax upon each person operating a cotton warehouse, whether in conjunction with a compress or not, which was graduated on the storage capacity of the warehouse. The appellant, a Delaware corporation, which maintained and operated a cotton warehouse and compress at Cleveland, Mississippi, brought suit to recover taxes with respect to both classes of business and paid, under protest, to appellee, the tax collector, in 1932. The court, in its opinion, described the business done by appellant as follows:

"Cleveland, Mississippi, is a ship-

VIRGINIA STATE CORPORATION COMMISSION

ping point for baled cotton in interstate and foreign commerce and is a market in which cotton is purchased by brokers and dealers from those who produce it within the state. The purchases are made for resale or to fulfill contracts for sale of cotton without the state. In the usual course of business the purchased cotton, after it is ginned, is transported to appellant's warehouse for storage and compression, about 25 per cent arriving by automobile truck or wagon and the remainder by rail over the line of the single railroad serving Cleveland. Upon delivery appellant issues its negotiable warehouse receipts for the cotton, in the form and manner provided by the United States Warehousing Act. The right to demand delivery of the cotton or otherwise control its disposition is reserved to the holders of the receipts. A small part of the stored cotton, from 1 per cent to 10 per cent, is resold within the state to buyers who sell it to purchasers without the state, but all except a negligible part of it is ultimately shipped to points outside the state. Upon shipping orders given by the holders of the warehouse receipts, appellant compresses the cotton into bales of standard weight and size, suitable for shipment, and delivers them to the rail carrier for interstate transportation. The movement of the cotton out of the warehouse is directed by the owners of it who hold the warehouse receipts. Its destination is not determined until the owner gives shipping instructions to appellant and shipment is not made until surrender of the warehouse receipts. The compress charges are paid by the carrier, which it adds to the charge for carriage, and in the case of

cotton brought to the warehouse by rail carriage the through interstate rail rate is applied from the point of origin to destination instead of the combination rate which is the sum of the intrastate rate to Cleveland and the interstate rate from that point to destination. The identity of the cotton is not preserved in reshipping it and substitution is permitted with the understanding that the through rate from point of origin to destination without the state shall not be affected. By written agreement with the railroad company appellant is designated as the agent of the railroad to receive the cotton from and deliver it to the railroad and to load and unload cotton upon and from its cars. The agreement also provides for the use of the warehouse by the railroad as a cotton depot."

It appeared that appellant was licensed by the Secretary of Agriculture of the United States to conduct a warehouse for the storage of agricultural products under the provisions of the United States Warehousing Act of August 11, 1916, and had given a bond for the faithful performance of the duties which are exacted of a licensed warehouseman by the act and by the rules and regulations of the Secretary of Agriculture and that its business as a warehouseman was subject to his inspection and control as the statutes and regulations provided. The Warehousing Act confers upon licensees certain privileges and secures to the national government, by means of the licensing provisions, a measure of control over those engaged in the business of storing agricultural products who find it advantageous to apply for the license. The government

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

exercises that control in the furtherance of a governmental purpose to secure fair and uniform business practices. Appellant contended that the tax upon the business both of warehousing and compressing the cotton was a forbidden burden on interstate commerce and that the warehouse tax was unconstitutional because a direct tax upon a business conducted by appellant as a Federal instrumentality designated as such by its license under the United States Warehousing Act. The court held, as to the first contention of appellant that the activities of appellant in the state did not constitute interstate commerce in the state; that the cotton while in the warehouse, had not begun to move in interstate commerce, and hence was not the subject of interstate commerce, immune from local taxation, and that the privilege taxed was exercised before interstate commerce began and hence was too indirect and remote to transgress constitutional limitations, and said, at p. 627 of 78 L. ed.:

"The case, therefore, stands on a footing different from those in which local regulations of the business of purchasing a commodity within and shipping it without the state have been deemed to impede or embarrass interstate commerce in those commodities. *Dahnke-Walker Milling Co. v. Bonduarant* (1921) 257 U. S. 282, 66 L. ed. 239, 42 S. Ct. 106."

(*Dahnke-Walker Milling Co. v. Bonduarant*, *supra*, involved an action for damages for breach of contract for the sale of a crop of wheat in Kentucky, purchased by a Tennessee corporation for shipment, as usual, to its mill in its home state, the grain to be delivered by the seller on board the

cars of a common carrier. The principal defense interposed was that the purchaser had not complied with a statute of Kentucky prescribing the conditions on which foreign corporations might do business in that state, and that the contract was, therefore, not enforceable. The court held that the activities of the foreign corporation in Kentucky were a part of interstate commerce in which the corporation lawfully might engage without any permission from the state, and that the Kentucky statute was, as to the transaction in question, invalid because repugnant to the commerce clause.) In considering the second contention of appellant—the court held that it was not immune, as a Federal instrumentality, from a state license tax such as was involved in the case, which was imposed without discrimination on all persons engaged in the business of warehousing and compressing cotton; that the enjoyment of a privilege conferred by either the national or a state government upon an individual, even though to promote some governmental policy, does not relieve him from the taxation by the other of his property or business used or carried on in the enjoyment of the privilege or the profits derived from it; that the fact that the license was used as a means of government control of appellant's business did not call for a different conclusion, as the national government had not assumed to tax the business or to exercise any control over the taxation of it by the state and the state did not tax the license itself and the tax upon appellant's business, applied without discrimination to all similar businesses whether licensed or not, did not impair

VIRGINIA STATE CORPORATION COMMISSION

the control which the Federal authority had chosen to exert; and finally that the mere extension of control over a business by the national government does not withdraw it from a *local* tax which presents no obstacle to the execution of the national policy.

See also *Townsend v. Yeomans* (1937) 301 U. S. 441, 81 L. ed. 1210, 57 S. Ct. 842, where the distinction between the case under consideration and *Dahnke-Walker Milling Co. v. Bondurant, supra*, was also recognized.

The rule heretofore issued against respondent on account of its failure to comply with § 3847 of the code of Virginia should be dismissed.

In conclusion, it may be said that the business of transmission of messages by radio—broadcasting—constitutes interstate commerce; that even though messages originate at the studio of respondent in its transmitter building at Alexandria, they constitute activities in interstate commerce and this is especially true since such messages are first sent to the control room of respondent in Washington and thence sent to the transmitter in Alexandria, whence they are broadcast; that radio is peculiarly national in scope and requires uniformity of regulation; that Congress has taken jurisdiction over the entire field of radio communications and broadcasting, including the activities conducted by the respondent in Virginia, and that respondent is not doing any intrastate business in Virginia, but is engaged solely in interstate commerce and, therefore, is not required to comply with § 3847 of the Code of Virginia and obtain a certificate of authority to do business in Virginia.

The rule issued by the Commission

should be dismissed, and an order to that effect will be entered.

ORDER

Upon a rule issued on July 22, 1937, by the State Corporation Commission against Columbia Broadcasting System, Inc., a corporation organized and existing under the laws of New York, returnable at the courtroom of the Commission on Friday, September 10, 1937, requiring the said Columbia Broadcasting System, Inc., to show cause why it should not be fined under § 3848 of the Code of Virginia, as amended, for transacting business in the commonwealth of Virginia without first obtaining the certificate of authority provided for in § 3847 of the Code of Virginia, 1919, as amended, and after several continuances was heard before the Commission in its courtroom at Richmond on January 7, 1938, Hooker, Chairman, and Ozlin and Fletcher, Commissioners, sitting; W. W. Martin, Assistant Attorney General, C. M. Chichester, Special Assistant Attorney General, and Ralph H. Ferrell, Jr., Special Assistant Attorney General, appeared for the commonwealth; and Godfrey Goldmark, Ralph F. Colin, and Max Freund, appeared for Columbia Broadcasting System, Inc.

Upon the evidence submitted and the exhibits filed therewith, the answer of the Columbia Broadcasting System, Inc., filed in this proceeding, and upon the whole record herein, and after argument by counsel, the Commission is of the opinion, as set forth in the opinion of Chairman Fletcher, this day filed and made a part of the record herein, that the said rule should be dismissed;

VIRGINIA EX REL. STATE CORP. COM. v. C. B. S. INC.

It is *ordered*, that said rule against the said Columbia Broadcasting System, Inc., be, and it hereby is, dismissed and that the opinion of Fletcher, Chairman, be, and it hereby is,

filed and made a part of the record herein.

It is *further ordered*, that attested copies of this order be forwarded to all appearances of record.

WASHINGTON SUPREME COURT

Inland Empire Rural Electrification,
Incorporated

v.

Department of Public Service of
Washington et al.

[No. 27568.]

(— Wash. —, 92 P. (2d) 258.)

Judgment, § 1 — Proper remedy — Declaratory judgments — Statutes.

1. The statute authorizing any person affected by findings of the Commission to apply to a specific court for a writ of review to determine the reasonableness or lawfulness of such findings does not preclude an action for a declaratory judgment to determine the rights, status, and legal relations of a rural electrification corporation and to determine whether it is subject to Commission jurisdiction, p. 176.

Regulation — Extent of Public Service Commission Law — Private corporation.

2. The Public Service Commission Law relates to public service properties and utilities rather than to private corporations not serving the public, and regulation by the Department is predicated upon the proposition that the service rendered is public service, and, further, that if the person sought to be regulated is a corporation, it be a public service corporation, p. 177.

Public utilities, § 14 — Test of status — Holding out.

3. A corporation becomes a public service corporation, subject to Commission regulation only when and to the extent that its business is dedicated or devoted to a public use, and the test to be applied is whether or not the corporation holds itself out, expressly or impliedly, to supply its service for use either by the public as a class or by that portion of it that can be served by the utility, or whether it merely offers to serve only particular individuals of its own selection, p. 179.

Public utilities, § 13 — What constitutes — Question of fact.

4. The question of the character of a corporation, whether a public service corporation or a private corporation, is one of fact to be determined by the evidence disclosed by the record, p. 180.

WASHINGTON SUPREME COURT

Public utilities, § 32 — Tests of status — Legislative declaration.

5. A private corporation cannot be converted into a public service corporation by mere legislative fiat, p. 180.

Public utilities, § 58 — What constitutes — Coöperative association — Service at cost to members.

6. A rural electric coöperative association, organized under a statute providing for the formation of nonprofit corporations, is not a public service corporation subject to regulation if it has not dedicated or devoted its facilities to public use, or held itself out as serving or ready to serve the general public or any part of it, and does not conduct its operations for gain but furnishes service at cost only to members, p. 180.

[July 10, 1939.]

APPEAL from judgment declaring a coöperative association not subject to Commission regulation; affirmed.

APPEARANCES: G. W. Hamilton and Geo. G. Hannan, both of Olympia, for appellants; Davis, Heil & Davis, of Spokane, for respondent.

STEINERT, J. : The purpose of this action was to obtain a declaratory judgment establishing plaintiff's legal status and determining whether or not it was subject to the jurisdiction of the Department of Public Service. Defendants' demurrer to the complaint was overruled. Upon refusal by defendants to plead further, the court entered judgment declaring that plaintiff was not a public service corporation or a public utility within the purview of the Public Service Commission Law and that it was not subject to the jurisdiction, supervision, or control of the department. The defendants have appealed.

The complaint, to which we are limited for a knowledge of the facts, presents the case as follows: Respondent, Inland Empire Rural Electrification, Inc., is a corporation, created under Chap. 134, p. 255, Laws of 1907 (Rem. Rev. Stat. §§ 3888-3900), which provides for the forma-

tion of corporations "for any lawful purpose except the carrying on a business, trade, avocation, or profession for profit." The corporation was organized by a group of farmers in Spokane and Whitman counties in March, 1937, and is one of many rural electrification projects in this and other states of the Union. Its purposes, in general, are to generate, manufacture, purchase, and acquire electrical energy, and to distribute the same over its transmission lines, at cost, to its members only. It is financed by the Rural Electrification Administration, a United States' agency which was created under the Federal Rural Electrification Act (May 20, 1936, 49 Stat. 1363, 7 USCA §§ 901-914), and which is authorized to make loans in the several states and territories for rural electrification and the furnishing of electrical energy to persons in rural areas who are not receiving central station service.

According to its charter and by-laws, membership in the corporation is evidenced by certificate. A person, whether an individual, a partnership, or a corporation, may become a mem-

INLAND EMPIRE RURAL E., INC. v. DEPT. OF PUB. SERV. OF WASH.

ber only after acceptance of his, or its, application by the board of trustees, the payment of a membership fee of \$5 and the execution of an agreement to purchase, monthly, not less than the minimum amount of electrical energy as fixed by the corporation from time to time. Not more than one membership may be held, owned, or controlled by any one person, partnership, corporation, or association, and each member is limited to one vote in the affairs of the company. Any member may be expelled for violation of the by-laws, the articles of incorporation, or the rules and regulations of the corporation, and, upon expulsion, voluntary withdrawal, or death of any member, his, or its, membership may be canceled and the membership fee returned.

According, also, to the charter and by-laws, at the close of each fiscal year, and after provision has been made for the payment of operating expenses, interest and matured obligations, taxes, and insurance, the corporation is required to apply the earnings to the following purposes in the priority as listed, (1) for the establishment and maintenance of a reserve fund to be used for the payment of outstanding notes, bonds, and other instruments of indebtedness, (2) for the establishment of a general reserve fund to be used for working capital, taxes, insurance, and depreciation, (3) for the payment, to the members, of refunds in proportion to the amounts of their purchases of electrical energy and goods from the corporation, and (4), to the extent of the remainder, for corporate purposes.

The respondent corporation has constructed its electric facilities with

funds derived from loans advanced by the Rural Electrification Administration to the extent of \$1,000,000, for which the corporation has given its notes secured by an open mortgage on its properties. It contemplates building, in the near future, additional lines in order to serve other persons in adjoining rural areas who desire to become members and who are not now receiving central station service; for such expansion it expects to obtain additional loans from the same source and upon notes secured by the same mortgage.

The corporation obtains its electrical energy from Washington Water Power Company at wholesale rates and in turn delivers it over its lines to its members at retail according to fixed rates. It supplies such energy to its members only and does not intend in the future to render service to or for the public.

As alleged in the complaint, the Department of Public Service, appellant herein, is vested by law, Chap. 117, p. 538, Laws of 1911, and subsequent amendatory and supplemental acts (Rem. Rev. Stat. §§ 10339-10459), with certain regulatory and supervisory powers over public service properties and utilities, including regulation of rates and service. Further, under Chap. 151, p. 540, Laws of 1933 (Rem. Rev. Stat. Supp. §§ 10439-1 to 10439-15), the Department is vested with supervision over the issuance of stocks, bonds, notes, and other evidences of indebtedness of public service corporations, and unless the issuance of such evidences be permitted by the Department, they are void. Also, under the provisions of Chap. 158, p. 556, Laws of 1937 (Rem. Rev. Stat.

WASHINGTON SUPREME COURT

Supp. §§ 10417 to 10417-6), every corporation subject to regulation by the Department, with certain exceptions not relevant here, is required to pay to the Department a fee equivalent to a certain percentage of its gross operating revenue.

The Department, upon the advice of the attorney general, has heretofore asserted and exercised jurisdiction over respondent as though it were a public service corporation within the meaning of the Public Service Commission Law. It has required respondent to submit, for approval, the notes and mortgages which it executed and delivered to the United States, and has demanded that respondent file its rate schedules and submit its membership certificates for approval or disapproval. The Department insists that respondent must continue to do these things in the future and also must pay as a fee a certain percentage of its gross operating revenue. Respondent in the past has complied with the requirements of the Department, but only under protest, expressly reserving its right to contest the asserted jurisdiction.

Upon this set of facts, as alleged in the complaint, respondent sought a declaratory judgment of its rights.

[1] Two questions, both raised by the demurrer, are presented on the appeal. The first relates to the jurisdiction of the court to entertain the proceeding.

Rem. Rev. Stat. Supp. § 10428, which is an amendment of the Public Service Commission Law of 1911, provides: "Any complainant or any public service company affected by any findings or order of the Department, and deeming such findings or order

to be contrary to law, may, within thirty days after the service of the findings or order upon him or it, apply to the superior court of Thurston county for a writ of review, for the purpose of having the reasonableness and lawfulness of such findings or order inquired into and determined."

Appellant contends that, a remedy having been provided by the section just quoted, such remedy is exclusive. We entertain a different view of the matter.

In 1935, the legislature passed the declaratory judgment act, Laws of 1935, Chap. 113, p. 305. The law, as amended in 1937, now appears as Rem. Rev. Stat. Supp., § 784-1 et seq. Section 1 of the act (Rem. Rev. Stat. Supp. § 784-1), provides that courts of record shall have power to declare rights, status, and other legal relations, whether or not further relief is or could be claimed. Section 2 of the act (Rem. Rev. Stat. Supp. § 784-2) provides: "A person interested under a deed, will, written contract, or other writings constituting a contract, or whose rights, status, or other legal relations are affected by a statute, municipal ordinance, contract, or franchise, may have determined any question of construction or validity arising under the instrument, statute, ordinance, contract, or franchise and obtain a declaration of rights, status, or other legal relations thereunder." (Italics ours.)

We have upheld the constitutionality of that act and have declared that it may be invoked for the purposes designated therein, provided the case presents a justiciable controversy, that is, a cause of action wherein the parties have opposing interests which are di-

INLAND EMPIRE RURAL E., INC. v. DEPT. OF PUB. SERV. OF WASH.

rect and substantial, and which involve an actual, as distinguished from a possible or potential, dispute. *Acme Finance Co. v. Huse* (1937) 192 Wash. 96, 73 P. (2d) 341, 114 A.L.R. 1345; *State ex rel. Yakima Amusement Co. v. Yakima County* (1937) 192 Wash. 179, 73 P. (2d) 759; *Washington Beauty College v. Huse* (1938) 195 Wash. 160, 80 P. (2d) 403.

The required conditions are fully met in the instant case. This action is not one primarily to test the reasonableness or lawfulness of the findings or order made by the Commission, for which the remedy would be by writ of error. On the contrary, it is a convenient action the object of which is to obtain a declaration of the rights, status, and legal relations of respondent, dependent upon the construction of a statute. The controversy here presents a situation for which the declaratory judgment act was designed to afford relief.

[2] The second, and principal, question in the case is whether or not respondent, in the conduct of its business, is subject to regulation and supervision by the Department of Public Service of this state, under and pursuant to the Public Service Commission Law, and, more specifically, whether or not respondent, in negotiating its loans and mortgaging and pledging its assets and revenues in furtherance of its business, is subject to the jurisdiction of the Department.

Appellants' contention is that the public service commission law, Rem. Rev. Stat. §§ 10339-10459, in scope and by specific definition, comprehends the activities which respondent now conducts and the particular transactions which it immediately contem-

plates. Respondent contends that it operates strictly within the provisions of Rem. Rev. Stat. §§ 3888-3900, and, by virtue of the method of its operation, is without the scope of the Public Service Commission Law. It is therefore necessary that we contrast certain sections of these respective statutes and further consider respondent's method of doing business.

The Public Service Commission Law, adopted in 1911, came into existence through an act entitled: "*An act relating to public service properties and utilities*, providing for the regulation of the same, fixing penalties for the violation thereof, making an appropriation, and repealing certain acts. (Italics ours.) Laws 1911, Chap. 117, p. 538. Although the act has been amended from time to time, its original purpose has been consistently maintained.

Section 8 of the act, now Rem. Rev. Stat. § 10344, contains definitions of various terms, persons, and utilities referred to in the act. The term "service" is used in its broadest and most inclusive sense. The term "public service company" includes every common carrier, gas company, electrical company, water company, telephone company, telegraph company, wharfinger, and warehouseman, as such terms are further defined in the same section. The term "electrical company" includes, among other persons and entities, every corporation (with certain exceptions not material here) operating or managing any electric plant *for hire* within this state. The term "electric plant" includes all real estate, fixtures, and personal property operated, owned, used, or to be used for and in connection with, or to facilitate, the

WASHINGTON SUPREME COURT

generation, transmission, distribution, sale, or furnishing of electricity for light, heat, or power *for hire*. Other sections of the act deal with the filing of schedules of rates, and with charges, unreasonable preferences, unjust discriminations, contracts, and distribution of service facilities. By a supplemental act passed in 1933 (Laws of 1933, Chap. 151, p. 540, and now appearing as Rem. Rev. Stat. Supp. §§ 10439-1 to 10439-15), the Department is vested with power to supervise and regulate the issuance of stocks or other evidences of ownership and of notes and other evidences of indebtedness and the creation of property liens by public service companies as defined in the act.

It is apparent that, upon a literal application of the definitions above set forth, respondent would come within the scope of the regulatory provisions of the 1911 act and the additions thereto found in the 1933 act, both of which acts are parts of the Public Service Commission Law; for respondent is an "electrical company" operating an "electric plant" in this state, for hire, in the sense that it exacts from its members compensation for its service, and it has issued certificates of ownership and has likewise issued, and proposes further to issue, its notes secured by a lien on its properties. However, the question submitted for our determination is whether, despite these literal definitions, respondent *is*, in fact and law, a *public service corporation* within the purview of the Public Service Commission Law.

Turning, now, to the Act of 1907 (Rem. Rev. Stat. §§ 3888-3900) under which respondent claims to be operating, we note its provisions. Cor-

porations may be formed under that act for any lawful purpose "except the carrying on a business, trade, avocation, or profession for profit." Rem. Rev. Stat. § 3888. Such corporations shall have no capital stock, and the interest, voice, vote, or authority of each member shall be equal to that of every other member. Rem. Rev. Stat. § 3889. Membership may be terminated by voluntary withdrawal, by expulsion, or by death. Rem. Rev. Stat. § 3891. The corporation may by its by-laws provide the mode and manner of conducting business; the manner in which membership shall cease; the manner of expulsion of members; the manner of terminating their interest in the corporate property, with or without remuneration therefor; the amount of membership fees and dues; the charges which may be made for services rendered or supplies furnished to the members by the corporation; and the formation of a surplus fund and the manner and proportions of its distribution. Rem. Rev. Stat. § 3893. The corporation may borrow money and issue its notes, bills, or evidences of indebtedness, and may mortgage its property as security. Rem. Rev. Stat. § 3894. The corporation is forbidden, by Rem. Rev. Stat. § 3898, to engage in any business, trade, avocation, or profession *for gain*, on penalty of forfeiting its right to exist and having a judgment of dissolution entered against it in an action brought by the state; that section, however, concludes with the following provision: "Nothing herein contained shall be construed to forbid such a corporation accumulating a surplus fund through membership fees and dues, or from charges made its members for services rendered

INLAND EMPIRE RURAL E., INC. v. DEPT. OF PUB. SERV. OF WASH.

or supplies furnished them by it, and the distribution of such fund among the members in the manner provided by the by-laws."

From what has been already stated herein, it is apparent that respondent was organized and is pursuing its activities strictly in accordance with the provisions and privileges of the 1907 act. However, the question in this respect is whether respondent, although created and purporting to operate under that act, is, nevertheless, in fact and law, a public service corporation.

Regulation by the Department is predicated upon the proposition that the service rendered is public service and, further, if the person sought to be regulated is a corporation, that it be a public service corporation; in other words, the Public Service Commission Law relates to public service properties and utilities. This is indicated in the title and throughout the provisions of the act, and all courts to which our attention has been directed, including our own, have proceeded on that theory. *State ex rel. Webster v. Superior Court* (1912) 67 Wash. 37, 120 Pac. 861, L.R.A.1915C, 287, Ann. Cas. 1913D, 78; *State ex rel. Public Service Commission v. Spokane & I. E. R. Co.* 89 Wash. 599, P.U.R.1916D, 469, 154 Pac. 1110, L.R.A.1918C, 675; *Sunset Shingle Co. v. Northwest Electric & Water Works* (1922) 118 Wash. 416, 203 Pac. 978; *Clark v. Olson* (1934) 177 Wash. 237, 31 P. (2d) 534, 93 A.L.R. 240; *State ex rel. Spokane United Railways v. Department of Public Service* (1937) 191 Wash. 595, 22 P.U.R.(N.S.) 76, 71 P. (2d) 661; 51 C.J. 38, § 79.

Were the law construed to apply to private corporations not serving the public, a serious question would arise as to its constitutionality under the Fourteenth Amendment of the United States Constitution, USCA, and Art. I, § 3, of the Constitution of the state of Washington. *Munn v. Illinois* (1877) 94 U. S. 113, 24 L. ed. 77; *Michigan Pub. Utilities Commission v. Duke*, 266 U. S. 570, 69 L. ed. 445, P.U.R.1925C, 231, 45 S. Ct. 191, 36 A.L.R. 1105; *Frost v. California R. Commission*, 271 U. S. 583, 70 L. ed. 1101, P.U.R.1926D, 483, 46 S. Ct. 605, 47 A.L.R. 457; *Smith v. Cahoon*, 283 U. S. 553, 75 L. ed. 1264, P.U.R.1931C, 448, 51 S. Ct. 582.

[3] A corporation becomes a public service corporation, subject to regulation by the Department of Public Service, only when, and to the extent that, its business is dedicated or devoted to a public use. The test to be applied is whether or not the corporation holds itself out, expressly or impliedly, to supply its service or product for use either by the public as a class or by that portion of it that can be served by the utility, or whether, on the contrary, it merely offers to serve only particular individuals of its own selection. *Clark v. Olson* (1934) 177 Wash. 237, 31 P. (2d) 534, 93 A.L.R. 240; *Van Hoosear v. Railroad Commission* (1920) 184 Cal. 553, P.U.R. 1921C, 447, 194 Pac. 1003; *Mound Water Co. v. Southern California Edison Co.* (1921) 184 Cal. 602, 194 Pac. 1014; *Richardson v. Railroad Commission* (1923) 191 Cal. 716, P.U.R.1924A, 775, 218 Pac. 418; *Stoehr v. Natatorium Co.* (1921) 34 Idaho, 217, P.U.R.1922A, 626, 200 Pac. 132; *Humbird Lumber Co. v.*

WASHINGTON SUPREME COURT

Public Utilities Commission (1924) 39 Idaho, 505, P.U.R.1925A, 225, 228 Pac. 271; State P. U. C. ex rel. Macon County Teleph. Co. v. Bethany Mut. Teleph. Asso. (1915) 270 Ill. 183, P.U.R.1916A, 997, 110 N. E. 334, Ann. Cas. 1917B, 495; State ex rel. Evansville Teleph. Co. v. Okaw Valley Mut. Teleph. Asso. 282 Ill. 336, P.U.R.1918C, 583, 118 N. E. 760; Hinds County Water Co. v. Scanlon, 159 Miss. 757, P.U.R.1931C, 330, 132 So. 567; State ex rel. Buffum Teleph. Co. v. Public Service Commission (1917) 272 Mo. 627, P.U.R.1918C, 158, 199 S. W. 962, L.R.A.1918C, 820; State ex rel. Danciger & Co. v. Public Service Commission (1918) 275 Mo. 483, P.U.R. 1919A, 353, 205 S. W. 36, 18 A.L.R. 754; State ex rel. Lohman & Farmers Mut. Teleph. Co. v. Brown (1929) 323 Mo. 818, P.U.R.1930A, 160, 19 S. W. (2d) 1048; State v. Southern Elkhorn Teleph. Co. 106 Neb. 342, P.U.R.1921E, 33, 183 N. W. 562; Overlook Develop. Co. v. Public Service Commission (1932) 306 Pa. 43, 158 Atl. 869; Dairymen's Co-op. Sales Asso. v. Public Service Commission (1935) 318 Pa. 381, 177 Atl. 770, 98 A.L.R. 218; Schumacher v. Railroad Commission (1924) 185 Wis. 303, P.U.R.1925C, 228, 201 N. W. 241.

[4, 5] The question of the character of a corporation is one of fact to be determined by the evidence disclosed by the record. A corporation which is actually engaged as a public utility cannot escape regulation by the state merely because its charter or its contract characterizes it as a private corporation. On the other hand, a private corporation cannot be convert-

ed into a public service corporation by mere legislative fiat. What it does is the important thing, not what it, or the state, says that it is. Cushing v. White (1918) 101 Wash. 172, 172 Pac. 229, L.R.A.1918F, 463; State ex rel. Silver Lake R. & Lumber Co. v. Public Service Commission (1921) 117 Wash. 453, P.U.R.1922B, 314, 201 Pac. 765, 203 Pac. 3; State ex rel. Addy v. Department of Public Works (1930) 158 Wash. 462, P.U.R.1931B, 184, 291 Pac. 346; Terminal Taxicab Co. v. Kutz, 241 U. S. 252, 60 L. ed. 984, P.U.R.1916D, 972, 36 S. Ct. 583, Ann. Cas. 1916D, 765; People ex rel. Knowlton v. Orange County Farmers' & Merchants' Asso. 56 Cal. App. 205, P.U.R.1922D, 443, 204 Pac. 873; State P. U. C. ex rel. Macon County Teleph. Co. v. Bethany Mut. Teleph. Asso. (1915) 270 Ill. 183, P.U.R.1916A, 997, 110 N. E. 334, Ann. Cas. 1917B, 495; Hinds County Water Co. v. Scanlon, 159 Miss. 757, P.U.R.1931C, 330, 132 So. 567; State ex rel. Danciger & Co. v. Public Service Commission (1918) 275 Mo. 483, P.U.R.1919A, 353, 205 S. W. 36, 18 A.L.R. 754; Ambridge v. Public Service Commission, 108 Pa. Super. Ct. 298, P.U.R.1933D, 298, 165 Atl. 47; Limestone Rural Teleph. Co. v. Best (1916) 56 Okla. 85, 155 Pac. 901.

[6] Applying these rules and principles, we are of the opinion that respondent is not a public service corporation and is, therefore, not subject to regulation by the Public Service Commission. Respondent was organized under the 1907 act and, so far as the complaint shows, it conducts its business strictly in accordance with the privileges conferred and the limi-

INLAND EMPIRE RURAL E., INC. v. DEPT. OF PUB. SERV. OF WASH.

tations prescribed by that act. But, more important than that is the controlling factor that it has not dedicated or devoted its facilities to public use, nor has it held itself out as serving, or ready to serve, the general public or any part of it. It does not conduct its operations for gain to itself, or for the profit of investing stockholders, in the sense in which those terms are commonly understood. It does not have the character of an independent corporation engaged in business for profit to itself at the expense of a consuming public which has no voice in the management of its affairs and no interest in the financial returns. Its members do not stand in the relation of members of the public needing the protection of the Public Service Commission in the matter of rates and service supplied by an independent corporation.

On the contrary, it functions entire-

ly on a cooperative basis, typifying an arrangement under and through which the users of a particular service and the consumers of a particular product operate the facilities which they themselves own. The service, which is supplied only to members, is at cost, since surplus receipts are returned ratably according to the amount of each member's consumption. There is complete identity of interest between the corporate agency supplying the service and the persons who are being served. It is a league of individuals associated together in corporate form for the sole purpose of producing and procuring for themselves a needed service at cost. In short, so far as the record before us indicates, it is not a public service corporation.

The judgment is affirmed.

Blake, C. J., and Main, Robinson,
and Jeffers, JJ., concur.

NEW YORK DEPARTMENT OF PUBLIC SERVICE, STATE DIVISION,
PUBLIC SERVICE COMMISSION

Estate of Adelaide S. Browning

v.

Consolidated Edison Company of New
York, Incorporated

[Case No. 9232.]

Service, § 485 — Dismissal of complaint — Final order.

A complaint against a provision in a rate schedule prohibiting resale and submetering of electricity should be dismissed, when uncontradicted testimony shows that the service classifications are based upon reasonable considerations as authorized by statute, instead of closing the case without

NEW YORK DEPARTMENT OF PUBLIC SERVICE

disposition on the merits, in order that there may be a final order which can be reviewed in the courts if so desired.

(MALTBIE, Chairman, and BURRITT, Commissioner, dissent.)

[July 25, 1939.]

REHEARING on complaint against submetering prohibitions in electric rate schedule; earlier order annulled and proceeding dismissed. For decision closing hearing without final disposition of complaint, see 27 P.U.R.(N.S.) 52.

APPEARANCES: Gay H. Brown, Counsel (by George E. McVay, Assistant Counsel) for the Public Service Commission; Whitman, Ransom, Coulson & Goetz (by Jacob H. Goetz and P. M. Berkson), Attorneys, New York city, for the Consolidated Edison Company of New York, Inc.; Eidlitz, French & Sullivan (by Cornelius J. Sullivan), New York city, Attorneys for the complainant.

Van Namee, COMMISSIONER: This matter was originally heard before me in hearings held in the early part of 1938. Upon the record and exhibits presented—there were 564 pages of testimony taken and 36 exhibits received—a memorandum was prepared by me on June 28, 1938, which recommended a dismissal of the complaint and that an order be entered closing the proceeding on the records of the Commission.

A memorandum by Chairman Maltbie was subsequently filed and at the meeting of the Commission on December 20, 1938 (27 P.U.R.(N.S.) 52), the matter was disposed of as follows: Chairman Maltbie moved that the hearing be closed as not a suitable case and not a suitable record on which to dispose of this important question—whether the company should be allowed by arbitrary rules and regulations to permit the resale of elec-

tricity under some contracts and not under others. Chairman Maltbie and Commissioners Lunn and Burritt concurred and voted for the motion as concurring in Chairman Maltbie's memorandum. Commissioner Brewster and I voted in the negative, concurring in my memorandum. The order entered as the result of this action read:

"A complaint, verified June 30, 1937, having been filed with this Commission by the Estate of Adelaide S. Browning against the Consolidated Edison Company of New York, Inc., and public hearings having been held, and the Commission having determined that this proceeding should be discontinued and closed on the records of the Commission, it is

"Ordered that this proceeding be and it hereby is discontinued and closed on the records of the Commission."

Subsequently and within the time allowed for an application for rehearing, such application was filed and the rehearing was requested principally upon the ground that the order as entered by the Commission was not a final order and appealable by the petitioner and the application for the rehearing stated that the principal reason for the rehearing was a desire by the petitioner to receive an order in this

ESTATE OF BROWNING v. CONSOL. EDISON CO. OF N. Y., INC.

matter upon which it could appeal to the courts for a review of the decision of the Commission.

The Commission on April 12, 1939, passed an order granting a rehearing which in part stated that "the complainant, the Estate of Adelaide S. Browning, having requested that a rehearing be held and sufficient reason for granting the rehearing having been made to appear, it is ordered that a rehearing in this proceeding be held." The hearing before me at the New York office of the Commission on the 21st day of April, 1939, followed.

At the hearing, the attorney for the petitioner stated that he had no further evidence to offer and that he stood by the request in his petition for a rehearing which stated that "we requested it for the purpose of requesting and permitting this Commission to make a final order determining this matter on the merits."

Mr. Goetz, for the company, stated that he agreed with Mr. Sullivan that both sides have presented all the facts that they had and that they felt were relevant to the issues in this case.

Mr. Goetz further pointed out that the minority opinion (by Commissioner Van Namee) recommended that the complaint be dismissed; but that the majority opinion (by Chairman Maltbie) merely discontinued the proceeding and closed it upon the records. He joined in the request of the complainant that the complaint be dismissed and submitted that the extended uncontradicted testimony showed that the service classifications in question were based upon reasonable considerations as authorized by § 65, Subdiv. 5 and § 66, Subdiv. 15 of the Public Service Law and such evidence must

lead in the absence of any other evidence to a conclusion that the rate so classified and the customers so classified have not been unreasonably established or are not unduly discriminatory. He urged that, upon a consideration of the evidence showing that the service classifications in question were based upon reasonable considerations, the Commission should enter an order dismissing the complaint.

Having reviewed the testimony and the exhibits, I feel that such disposition of this proceeding should be made and such an order should be passed by the Commission as will enable the petitioner to review the decisions of the Commission in the courts, if he so desires.

I therefore recommend that the Commission pass an order based upon this memorandum and upon my memorandum of June 28, 1938, annulling its order of April 12, 1939, and enter an order dismissing the proceeding.

Commissioners Lunn and Brewster concur; Chairman Maltbie in the negative, filing a memorandum dated July 19, 1939, which is concurred in by Commissioner Burritt.

MALTBIE, Chairman, dissenting: In December, 1938 (27 P.U.R.(N.S.) 52), there were before the Commission two memoranda. The one by Commissioner Van Namee recommended the dismissal of the complaint in this case on the ground that "nothing in the record justifies a finding that the applicable rate is unjustly discriminatory or unduly preferential"—a Scotch verdict. In the memorandum I submitted, I pointed out that the record in the case was far from ade-

NEW YORK DEPARTMENT OF PUBLIC SERVICE

quate to dispose of the fundamental question, namely, whether the Consolidated Edison Company should be permitted to refuse to allow a consumer under one form of contract to resell to tenants and to permit a consumer under another form of contract to engage in such resale. The fundamental difference between the two memoranda was that Commissioner Van Namee would decide the very important and far-reaching question of submetering upon a record made in a complaint case and on an inadequate presentation of all phases. I wished merely to discontinue the complaint proceeding and to leave the whole question of submetering open for thorough review when the present investigation into the property, revenues, and expenses is completed and the Commission is in position to determine, according to the "law of the land" what are reasonable rates for electricity in the area supplied by the Consolidated Edison Company.

The memorandum I submitted last December closed with the following words: "If the Commission finds after a thorough investigation of its own that an arbitrary rule prohibiting submetering in certain classes of service while permitting it in others is just and reasonable, it has the power so to rule; but a finding should not be based upon an inadequate record in a case where the Commission has left to the complainant the obligation of establishing that a given rule is reasonable or unreasonable." (27 P.U.R. (N.S.) at p. 56.)

Commissioners Lunn and Burritt fully concurred in this memorandum. Commissioner Brewster concurred in Commissioner Van Namee's memo-

randum. An order was adopted by a divided vote of three to two "discontinuing and closing the proceeding on the records of the Commission."

Thereafter, an application was made for a rehearing, although neither party stated that it was prepared to submit further testimony. The rehearing was held and devoted to discussion of the opinions—a purpose not contemplated by the order and for which there was no need. However, not one new fact was submitted and counsel for both parties confirmed the statement originally made, that no opportunity was desired for the submission of additional testimony. Thus at the end of the rehearing, *the facts and the law remain the same as in December, 1938, when the Commission decided to discontinue the proceeding.*

Why should the decision then made be changed? Why should an order be rescinded when the law and the facts are the same as when it was adopted? A most unusual reason is suggested. It is that the complainant will be better able to review the order of the Commission if the complaint is dismissed; that is, the Commission should change its order in order to give complainant a better opportunity to go to court.

This is certainly a novel suggestion, the logic of which is totally lacking. It has seemed to me that cases ought to be decided after a thorough investigation upon the law and the facts and not according to the easiest way for a litigant to secure a review in court. The Commission has discontinued many proceedings and this is the first time that it has been suggested that a determination made on the facts should

ESTATE OF BROWNING v. CONSOL. EDISON CO. OF N. Y., INC.

be reversed because one of the parties thinks it will give him a better standing in the courts.

Moreover, the complainant in this case has started one legal action and has not prosecuted it with zeal or fervor. His apparent anxiety to have the case decided on a record which clearly is inadequate and does not fully present the objections to submetering is most puzzling. The attitude of counsel for the Consolidated Edison Company is easily understood, for any company which can get a complaint dismissed upon an insufficient record has in the first place won a victory before the Commission and secondly has laid the groundwork for the defeat of any appellant in the courts.

To my mind, this case involves a fundamental question of regulation. When a company adopts an arbitrary rule permitting one thing to be done under one form of contract and denies it under another, should the Commission make a determination on the basis of what a complainant presents or is it under obligation to investigate the question thoroughly and make a determination after every phase of

the subject has been presented? One of the principal reasons why the whole regulatory system of the state of New York was recast in 1907 was that regulatory bodies had acted only upon matters complained of and treated cases very much as the courts do, leaving to the parties involved the presentation of such facts as they might wish to submit. The principal reason why new Commissions were created and were given authority in 1907 to initiate proceedings and a staff of accountants and engineers to conduct their own investigations was that regulation by complaint had completely broken down. The obligation was and is today upon the Commission to make its own investigation where an important question is raised and the submetering question will never finally be decided until the Commission makes its own investigation and determines whether arbitrary distinctions in rate classifications are justified.

No change having been made in the law or the facts, the decision made last December should stand.

Commissioner Burritt concurs.

UTAH PUBLIC SERVICE COMMISSION

Re Garkane Power Company, Incorporated

[Case No. 2262.]

Monopoly and competition, § 41 — Inadequacy of present service — Rural electric association.

1. Authority to construct and operate an electric utility should be granted where the present service, rendered by a company leasing the distribution system from a town, is inadequate to meet the needs of the community, where the present distribution system is in bad condition, and where the lease has been canceled, p. 187.

UTAH PUBLIC SERVICE COMMISSION

Public utilities, § 58 — Status of mutual organization — Offer of service to new members.

2. A coöperative electric corporation furnishing service not only to members but offering to render service to any member of the public located within its territory who is willing to pay the membership fees and the rates for its service is a public utility subject to Commission jurisdiction, p. 187.

[August 10, 1939.]

APPPLICATION for exemption from obtaining a certificate of convenience and necessity and in the alternative for a certificate of convenience and necessity authorizing the construction of electric transmission lines and distribution system and an electric generating plant; applicant held to be subject to jurisdiction of Commission and certificate granted.

APPEARANCES: Warren W. Porter, for Garkane Power Company, Inc.; Thomas E. Beal, for Escalante Power and Light Company.

By the COMMISSION: On the 3rd day of June, 1939, the Garkane Power Company, Inc., filed its application with the Commission asking that it be declared exempt from the jurisdiction of the Public Service Commission, and in the alternative that a certificate of convenience and necessity be issued to it authorizing it to construct, maintain, and operate an electrification system in Garfield and Kane counties to serve the towns of Mount Carmel, Orderville, Glendale, Alton, Hatch, Tropic, Cannonville,亨rieville, and Escalante.

The matter was set for hearing at Panguitch, Utah, on the 20th day of July, 1939. All interested parties were given due and legal notice of said hearing, which came on regularly for hearing on that date.

The applicant proposed to serve the locality now served by the Escalante Power and Light Company at Escalante, Utah, but was not ready to pro-

ceed with that phase of its case at that time. Pursuant to the order of the Commission and due notice to all interested parties, a further hearing was had on the matter at Escalante on Monday, August 7, 1939.

From the testimony adduced at the hearings above mentioned, and from the records and files in this case, which are made a part hereof by reference, the Commission finds:

The applicant, Garkane Power Company, Inc., is a corporation organized under the provisions of the nonprofit corporation laws of the state of Utah, with its principal place of business at Panguitch, Garfield county, Utah. The corporate charter prescribes that it is a membership organization and will render service only to members of the corporation. The articles of incorporation filed with the Commission are by reference made a part hereof.

The applicant has contracted with the Rural Electrification Administration of the United States government to borrow \$177,000 for its use in constructing the proposed electrification system. This money is to be repaid

RE GARKANE POWER CO., INC.

over a period of twenty years, together with interest on the deferred balance at the rate of 2.73 per cent per annum.

The county commissioners of Garfield and Kane counties have granted rights with respect to county roads in the county areas to be served and each of the aforementioned towns has granted the applicant a franchise to render electric service to said towns for periods ranging from twenty to ninety-nine years in duration.

The entire electrification project is to be constructed in accordance with the specifications of the Rural Electrification Administration, which standards meet the requirements of this Commission.

On the 5th day of June, 1939, the Commission issued a temporary order authorizing the applicant to go forward with construction of its project according to plans and specifications on file in the Commission's office, with the exception of the territory served by the Escalante Power and Light Company. By authority of said order construction is going forward at the present time on the project.

There is no other electric service being rendered in any of the territory proposed to be served by this applicant except in the towns of Escalante and Orderville. The applicant has made suitable arrangements with the utility serving Orderville to take over the plant and to continue the rendition of service now performed by the Orderville Light and Power Company.

[1] The hearing at Escalante was held for the purpose of determining what should be done with respect to that particular territory, which, at present, is being served by the Escala-

nte Power and Light Company. The service being rendered at the present time is not adequate to meet the needs of the community. Out of a possible 220 customers the utility is serving only 107. The present distribution system belongs to the town of Escalante, and is in a very bad condition. It was leased to the Escalante Power and Light Company, which lease has been canceled. The distribution system will be junked in order to permit the construction of an adequate and efficient one in its place. The community needs a better and more satisfactory electric service than has been or probably could be rendered by the Escalante Power and Light Company.

From the foregoing findings it is apparent that public convenience and necessity require the Commission to grant a certificate to the applicant to perform the proposed service.

[2] The other point to be disposed of is the question of the jurisdiction of the Commission over a coöperative utility such as applicant. It is true that the articles of incorporation contain the provision that it shall render no service to or for the public, and prescribe that all persons desiring service must become members and stockholders in the corporation. As a matter of actual practice the applicant will render service to any member of the public located within the territory served by its system who is willing to pay the membership fees and the rates for its service. This is in reality a rendition of service to the general public which makes the organization a public utility as defined by law.

The Commission, therefore, con-

UTAH PUBLIC SERVICE COMMISSION

cludes that the applicant is subject to the jurisdiction of the Public Service Commission of Utah, and that public convenience and necessity require that it be granted a certificate of convenience and necessity authorizing it to construct, maintain, and operate an

electrification system in Garfield and Kane counties to render electric service to the towns of Mount Carmel, Orderville, Glendale, Alton, Hatch, Tropic, Cannonville, Henrieville, and Escalante.

An appropriate order will follow.

NORTH DAKOTA BOARD OF RAILROAD COMMISSIONERS

Re John R. Bryan et al. Doing Business As Economy Cab Company

[Case No. S-661.]

Motor carriers, § 11 — Jurisdiction of Commission — Taxicabs — Rental of vehicles.

1. The Commission has no jurisdiction over taxicab operations where vehicles are rented without the services of a driver, p. 188.

Public utilities, § 102 — Motor carrier — Taxicabs — Type of service.

2. Taxicab operation constitutes common carrier service in the transportation of passengers where a driver is in charge of the car transporting passengers to a destination designated by the passenger and where such designation is outside city limits, p. 188.

[July 1, 1939.]

A PPLICATION by taxicab company for authority to furnish special motor passenger service; granted.

CART, President: The above-entitled matter came to the attention of the Commission on or about April 12, 1939, was set for hearing, and hearing held according to notice in the offices of the Commission on May 4, 1939. All interested parties were notified of the time and place of the hearing. The following appearance was entered: F. E. McCurdy, Attorney, Bismarck, in behalf of the applicant.

In this case the applicants, John R.

Bryan and Waldo Bryan, doing business as Economy Cab Company, Bismarck, North Dakota, are asking for authority to furnish special motor passenger service in the vicinity of Bismarck.

[1, 2] John R. Bryan, one of the applicants, gave testimony describing the nature of the business conducted by his company. The testimony indicates that there are two distinct types of service being offered by the applicant. One type is where the

RE BRYAN

Economy Cab Company does a general taxi business and also transports passengers beyond the 2-mile limit from the city of Bismarck. The other operation consists of renting automobiles to parties desiring to hire same, the party hiring such automobile driving the car himself and generally using it for a period of one day or more.

It is doubtful if the Commission has jurisdiction over this second type of operation described. Any operations carried on where the vehicle is rented without the services of a driver will not be construed as coming under the jurisdiction of the Board of Railroad Commissioners.

The operation described first, where a driver is in charge of the car trans-

porting passengers to a destination designated by the passenger and where such destination is more than 2 miles from the city of Bismarck, is construed as being common carrier service in the transportation of passengers.

No testimony was given in opposition to the granting of the application.

After considering all of the testimony taken in this case, it is the judgment of the Commission that a special passenger certificate should be issued if and when the applicant files a tariff, which is approved by the Commission, covering the charges to be made for the service proposed to be rendered, and further conditioned upon the following: [Customary conditions omitted.]

UTAH PUBLIC SERVICE COMMISSION

Re Moon Lake Electric Association, Incorporated

[Case No. 2251.]

Public utilities, § 21 — Tests of status — Articles of incorporation.

1. The true test as to whether or not a coöperative association is a public utility holding itself out to render service to the public generally is what it does rather than what its articles of incorporation prescribe, p. 190.

Public utilities, § 58 — Status of coöperative association — Unrestricted membership.

2. A coöperative association organized as a corporation under the nonprofit laws of the state to furnish service only to members is subject to the jurisdiction of the Commission as a public utility if anyone within the territory proposed to be served may become a member and a customer by paying the membership fees and the rates for the service offered, p. 190.

[August 11, 1939.]

APPLICATION for certificate of convenience and necessity authorizing construction, maintenance, and operation of electric system; granted.

UTAH PUBLIC SERVICE COMMISSION

APPEARANCES: John Rice, for Public Service Commission of Utah; George R. Stewart, Jr., for the Moon Lake Electric Association, Inc.

By the COMMISSION: On the 16th day of May, 1939, the Moon Lake Electric Association, Inc., filed an application with the Commission for a certificate of convenience and necessity authorizing it to construct, maintain, and operate an electrification system in Duchesne county, from the Uintah Power and Light Company's substation at Upalco to the towns of Bluebell, Mount Emmons, Altona, and Bonita, to serve said towns and the vicinities thereof.

The above-named applicant is a co-operative association organized for the purpose of taking advantage of a loan from the Rural Electrification Administration of the Federal government.

Its plans had proceeded up to the point of beginning construction on the project at the time the application was filed. In order to eliminate any delay in the construction, the Commission, on May 16, 1939, issued its preliminary report and order granting the applicant a temporary certificate, authorizing it to go forward with construction.

The matter was set for hearing May 26, 1939, and all interested parties were given due and legal notice thereof. Upon request of applicant the matter was continued until June 15, 1939, and again upon applicant's request it was further continued until July 19, 1939, at which time it came on regularly to be heard.

From the evidence adduced at the

hearing it appears that the findings contained in the Commission's preliminary report and order issued in this case on May 16, 1939, are correct. Said report, together with the supplemental matters treated herein, will be the permanent report in this case.

The applicant has now procured its franchise from Duchesne county permitting it to construct and maintain its electrification project.

[1, 2] One reason for the delay in the holding of the hearing in this matter was in order to give full consideration to the question of the jurisdiction of the Commission over an association such as the applicant. The association is a corporation organized under the nonprofit laws of the state of Utah, and its articles provide that it shall render no service except to its members. The Commission has been assisted by able and complete briefs filed by the counsel for the Rural Electrification Administration in Washington, and by Deputy Attorney General John D. Rice of the state of Utah, presenting the law on both sides of this matter. The true test as to whether or not the applicant is a public utility holding itself out to render service to the public generally is what it does, rather than what its articles of incorporation prescribe. From the testimony of witnesses for the association it appears that any member of the public who is willing to pay the membership fees and the rates for the service offered, and who is located within the territory proposed to be served by applicant may become a member and a customer. If the Commission were to hold that such an arrangement would prevent it from assuming jurisdiction, there is no reason why any

RE MOON LAKE ELECTRIC ASSO., INC.

utility in the state could not easily take itself out of the jurisdiction of the Public Service Commission. It is our opinion that the applicant is a public utility and subject to regulation and supervision by the Commission.

The localities proposed to be served by applicant are in a sparsely settled

area, where there is no existing electric utility. The residents of the area are naturally desirous of having electric service, and have associated themselves together for that purpose. Public convenience and necessity require the granting of the application.

An appropriate order will follow.

PENNSYLVANIA PUBLIC UTILITY COMMISSION

Re Pittsburg & Shawmut Railroad Company

[Application Docket No. 58077.]

Water, § 9 — Powers of Commission — Obstruction of stream.

The Public Utility Commission has no jurisdiction over streams and their flow, and the matter of the obstruction of streams is within the jurisdiction of the Water and Power Resources Board.

[August 17, 1939.]

A PPLICATION by railroad company for approval of abandonment of branch line; granted subject to conditions.

By the COMMISSION : In this application, the Pittsburg & Shawmut Railroad Company seeks Commission approval of the discontinuance of service over, and the abandonment of its Pine Run branch, which extends from a connection with the main line of the railroad company to Mill mine, a distance of 0.95 mile. The branch line is located entirely in Timblin borough, Jefferson county, and at no point is the branch line crossed by a public highway. There was no protest entered at the hearing against our approval of this application.

Testimony submitted at the hearing indicates that Pine Run branch was constructed in 1914 in order to provide

transportation facilities for a coal mine operated by the Stewart Coal Company and that in the construction of this line of railroad, the clearing, grubbing, grading, and trestle work were done at the expense of the Stewart Coal Company and that the rails were furnished and laid by the Pittsburg & Shawmut Railroad Company. It was further testified that the book cost of investment in the branch line by the applicant is \$11,579.08, and that the present salvage value of the line is \$4,984.64.

The mining operations, which this branch of the railroad company was constructed to serve, were discontinued in 1930, and since that time no

PENNSYLVANIA PUBLIC UTILITY COMMISSION

revenue has been obtained on this branch. The track has received no maintenance since train service was discontinued and is in a poor state of repair. The testimony further indicates that the track of this branch is carried across Pine creek upon a timber trestle.

A witness for the Water and Power Resources Board testified that, upon the abandonment of the track, in order to avoid the possible damming of the stream at times of high water, and consequent hazard to the public, it was his opinion that the trestle abutments, cribbing, and those portions of the intermediate bents extending above the level of the stream bed should be entirely removed and that a channel width of not less than 32 feet at stream bed elevation should be provided.

It appears from the record that this branch has served the purpose for which it was constructed and there is no public need for its continued operation and we shall, subject to certain conditions, approve the application. In permitting the abandonment of this branch line, we recognize that, according to the testimony of a witness for the Water and Power Resources Board, the trestle across Pine creek, if permitted to remain in its present position, may induce a danger to the public. However, nothing in the Public Utility Law gives us jurisdiction over streams and their flow. An act of June 25, 1913, P. L. 555, places the matter of the obstruction of streams within the jurisdiction of the Water Supply Commission, presently the Water and Power Resources Board. Sections Nos. 5 and 6 of the afore-

said act specifically provide that the aforesaid commission or board shall have the power, after investigation and determination of an unsafe condition, to order the repair or removal of an obstruction in a stream. Accordingly, it appears that adequate recourse is available against the hazard which may be created by virtue of permitting the aforesaid trestle to remain in its present position.

After full investigation of the matters and things involved, we are of the opinion and find that approval of the instant application, subject to the two hereinafter named conditions, is necessary and proper for the safety, accommodation, or convenience of the public; therefore,

Now, to wit, August 17, 1939, it is ordered: That approval of the right of the Pittsburg & Shawmut Railroad Company to abandon its Pine Run branch be and is hereby granted and that a certificate of public convenience issue evidencing such approval, subject to the following two conditions:

1. That the certificate shall take effect and be in force from and after thirty days from its date. Tariffs applicable to intrastate commerce on said line of railroad may be canceled upon notice to this Commission and to the general public by not less than ten days filing and posting in a manner prescribed by the Public Utility Law.

2. That the Pittsburg & Shawmut Railroad Company, when filing the schedules canceling tariffs applicable to intrastate commerce on said line of railroad, shall in such schedules refer to this certificate by title, date, and docket number.

GENERAL STATEMENT to All Users of Forms and Record Books

	LIABILITY	Paper not adequate for the purpose can endanger your entire record keeping and accounting system. Cheap substitutes for good quality paper cause torn and dog-eared forms, blurred typing or writing, poor erasures, waste, errors and delays.	
	ASSETS	Forms, records, blank books and control sheets on WAVERLY LEDGER are assets to any office. Record keeping is easier, faster, better, actually cheaper in the end.	
	SPECIAL QUALITIES	85% rag content for strength and durability - a perfect surface for typing or writing, erasing, printing and ruling - a glare-free finish that is easy and pleasant to work on.	
	USES	for Abstracts Maps Accounting Forms Notices Loose Leaf Forms Pass Books Ruled Forms Account Books Drafts Blank Books Charts Minute Books and all other important or hard-working forms or printed pieces.	
	MAKER'S NAME & REPUTATION	Byron Weston Company, makers of BYRON WESTON CO. LINEN RECORD, the paper used for the nation's most valuable permanent records.	
	RECOMMENDED ACTION	Write Byron Weston Co., Dept. C, Dalton, Mass., for sample book of Waverly Ledger showing all weights in White, Blue, Buff and the eye-ease shade, Horizon Green. Also for "Weston's Papers," an interesting publication packed with ideas and information about paper.	

WESTON'S PAPERS

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)



Industrial Progress

Selected information about manufacturers, new products, and new methods. Also news on personnel changes, recent and coming events.



Large-Scale Plant Expansion Programs Under Way

AMERICAN industry appears to have embarked upon a phase of large-scale plant expansion, according to recent reports.

Sharply increased demand for new plants, additions, and machinery to equip them, has been touched off by Europe's war and the stimulation to our economy which has followed during the past several weeks.

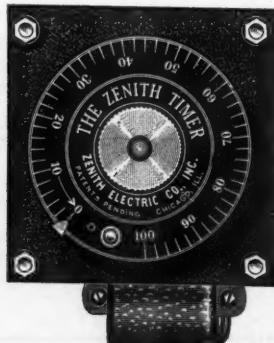
In the van of the movement is the electric utility industry. Since September 1st, utilities have placed new orders for power generating equipment totaling between 650,000 and 700,000 kilowatts of capacity to cost well in excess of \$70,000,000 when all expenses are considered.

With electric power output mounting to new record peaks, the industry is understood to have pushed up orders by three months or more to take care of anticipated demand. The industry ordinarily adds about a million kilowatts a year to its generating capacity.

Zenith Interval Timer Adapted for "Built-in" Installations

ZENITH Electric Company's line of automatic control equipment includes Synchronous Interval Timer, type MI of which is illustrated.

The MI timer is a compact unit developed for "built-in" installations. The depth required, back of outside plate, is only 2½ inches. The



dial is mounted outside of case and is indexed in minutes or seconds, as required. The dial is 2½ inches in diameter.

Mention the FORTNIGHTLY—It identifies your inquiry

NOV. 9, 1939

Trip pointer, on dial, is easily adjusted for pre-set time. Pointer is locked in position, so that if same time is to be repeated, it is not necessary to make further adjustments.

Timer is started by turning dial, in direction of arrow, until it trips the switch "ON." Dial then revolves, and trip pointer trips the switch "OFF" at the pre-set time.

Dial can be supplied with any time required. Standard units are 50 seconds, 5, 20 and 50 minutes.

Further information may be secured direct from the manufacturer, 603 South Dearborn St., Chicago, Ill.

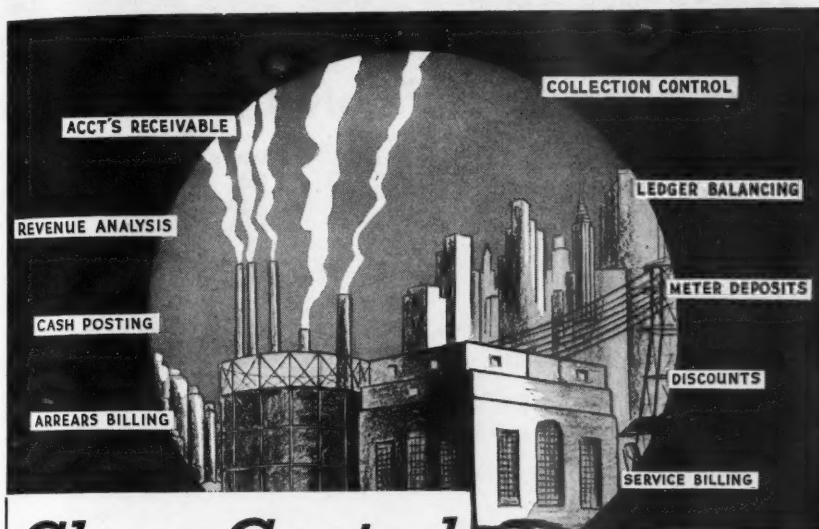
New International Motor Truck Proving Grounds

CONSTRUCTION of a fully modern proving grounds for the testing of motor trucks produced by the International Harvester Company on a tract of land southeast of Fort Wayne, Indiana, was recently announced by the company. The program will consist of an extensive modernization and expansion of the proving grounds which the company has maintained in Fort Wayne for some years. The expansion program has been engineered and planned exclusively to provide grueling tests for motor trucks.

The substantial expansion and modernization of the Fort Wayne proving grounds has been decided upon only after the most careful planning by the company's engineers. The company wanted to be certain that they had provided every sort of highway condition to which motor trucks are peculiarly subject in actual operations. The tests that have been and will continue to be made at the Fort Wayne proving grounds will be supplemented from time to time by exhaustive highway tests in various parts of the country, according to the announcement.

Budget for "CP" Gas Range Program Increased

A \$110,000 budget for 1940 national sales promotion of "CP" gas ranges, which is double the 1939 appropriation, has been approved by the twenty-five gas range manufacturers in the Association of Gas Appliance and Equipment Manufacturers now producing "CP" gas ranges. This was announced following a joint meeting of the Domestic Gas Range Committee of the Association of Gas Appliance and Equipment Manufacturers with a similar committee of the American Gas Association held October 12th in New York.



Closer Control

with this all-around accounting method

The accuracy and speed of the International Electric Accounting Method are proving ideal for all phases of public utility accounting work. By this modern method, entries are made as transactions occur. These entries are classified and reclassified mechanically, as often as necessary. No additional handling, posting or writing are required.

At the close of each accounting period, operating reports are prepared automatically. Special reports and analyses are also produced from the same media with accuracy and great speed.

International Electric Accounting Machines will also prepare your Payroll, Pay Checks, Statements to Employees, Earnings Records, Federal O.A.B. Reports, and State Unemployment Compensation Reports.

***There is an International Representative as near as
your telephone. Call him today.***

INTERNATIONAL BUSINESS MACHINES CORPORATION

General Offices
590 Madison Avenue, New York, N. Y.

Branch Offices in
Principal Cities of the World

INDUSTRIAL PROGRESS—(Continued)

In addition to enlarging the appropriation for 1940 "CP" range promotion, the association will double its field contact force to develop sales training and educational programs and to assist utilities and dealers in formulating local campaigns throughout the year.

The scope of next year's sales promotion effort will be divided into two major campaigns: Spring (March, April, May and June) and a Fall campaign (September, October, November and December). Mailing pieces will be distributed throughout the campaigns to key utility men, range manufacturers and field men, and dealer outlets. These elaborate mailing pieces will show current market potentiality and profit possibilities, will offer dealer cooperation and campaign plans, and will include concrete tie-in and sales training material.

The 1940 "CP" gas range promotion program will tie-in directly with the \$1,500,000 national advertising program of the American Gas Association.

To augment the field staff of the Association of Gas Appliance and Equipment Manufacturers, the American Gas Association recently appointed eight regional managers. These promotion supervisors, enlisted from utility companies, will cover the entire United States on dealer and sales education. Assisting the regional managers in "CP" promotion are forty-eight state managers.

Pennsylvania Power & Light Co. to Spend \$3,000,000

PENNSYLVANIA Power & Light Company plans to spend \$3,000,000 for plant additions at Harrisburg and to increase capacity by 20,000 kw. Expansion plans were drafted in cooperation with the National Defense Power Committee and in accordance with a request of the state Department of Commerce that electric utilities be prepared to handle the demand due to Pennsylvania's industrial expansion, according to the announcement.

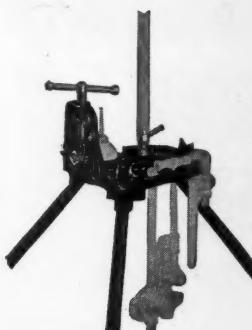
Preliminary construction work is expected to get under way within six weeks.

Ridge Tool Co. Announces Tri-Stand Vise

THE Ridge Tool Company, Elyria, Ohio, has added to its RIDGID line of pipe tools a vise complete with three legged stand that offers many new convenience features.

The legs are so constructed that they give perfect balance when set up and prevent tipping. They are hinged at the tray, fold together compactly and fasten with a chain for

convenient handling and carrying. Legs equipped for screwing to plank or floor may be secured if desired.



New Ridgid Tri-Stand Vise

The tray is wide and roomy providing plenty of space for dope pot, oil can and tools. Tools can be hung on the raised rim as well as in slots provided in the tray. There are a pipe rest and 3 different size pipe benders that won't collapse the pipe.

The vise is equipped with quickly adjustable screw for ceiling brace to hold it rigid while in use.

RIDGID Tri-Stand Vises are available in 2½ inch yoke and 4 inch chain patterns—made of special strong malleable metal, jaws of highest quality tool steel, scientifically hardened for firm grip and long wear. Yoke vises have No-Mar jaws that protect pipe surfaces.

This new RIDGID Tri-Stand Vise is being distributed only through supply houses.

Gas Range Committees' Chairmen Named

W. E. DERWENT, vice-president of the George W. D. Roper Corp., who was re-elected chairman of the Domestic Gas Range Division of the Association of Gas Appliance and Equipment Manufacturers at its fourth annual meeting in New York on October 9th, has announced the appointment of Lloyd C. Ginn, sales promotion manager of the American Stove Co., as chairman of the "CP" Gas Range Sales Management Committee. George Scofield, general sales manager of the Republic Light, Heat & Power Co., Buffalo, N. Y., is the newly elected chairman of the Domestic Gas Range Committee of the American Gas Association.

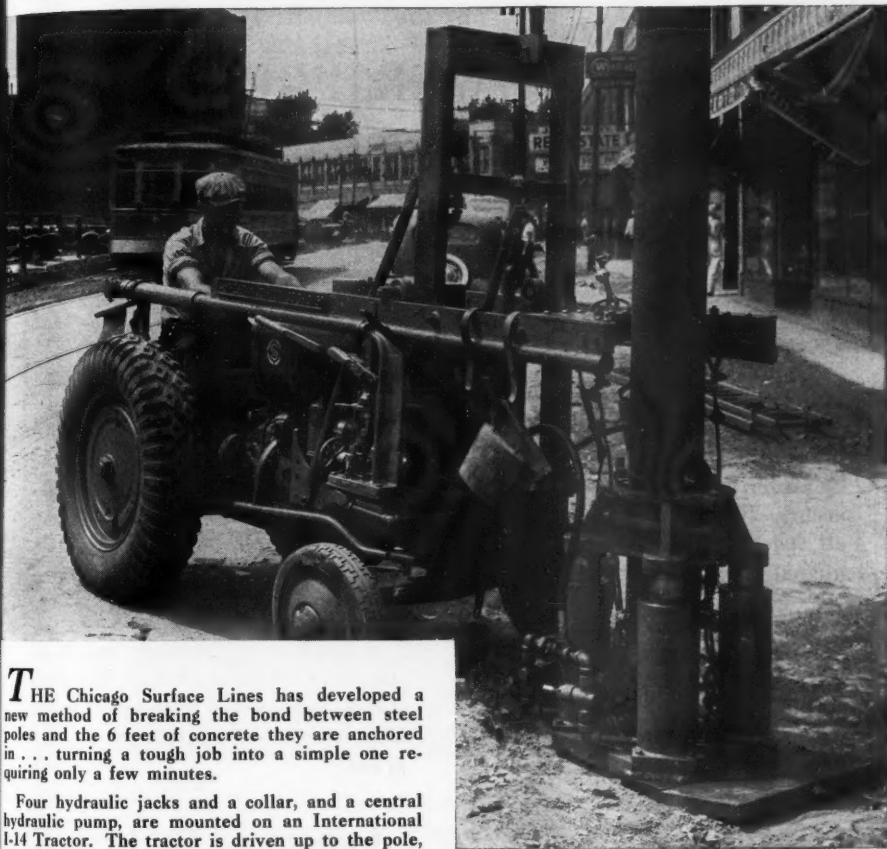
ZENITH ELECTRIC CO.
Automatic Control Equipment
Magnetic Switches—Time Switches
Program Clocks—Automatic Timers
Special equipment made to your specifications.
603 So. Dearborn St. Chicago, Ill.

FLETCHER MFG. CO.
Overhead Construction Materials
SERVING UTILITIES FOR 60 YEARS
38 N. Canal St., Dayton, O.

Mention the FORTNIGHTLY—It identifies your inquiry

NOV. 9, 1939

A New, Fast, Low-Cost Way to Remove Steel Power Line Poles from Concrete



THE Chicago Surface Lines has developed a new method of breaking the bond between steel poles and the 6 feet of concrete they are anchored in . . . turning a tough job into a simple one requiring only a few minutes.

Four hydraulic jacks and a collar, and a central hydraulic pump, are mounted on an International L-14 Tractor. The tractor is driven up to the pole, the collar opened and the jacks lowered to the ground. The collar is then locked and wedges set between it and the pole. Pressure of approximately 160 tons can be built up by the hydraulic pump, although that much pressure is rarely needed. When the bond is broken, the unit is uncoupled and the tractor quickly driven to the next pole.

The collar has been used for some time with journal jacks. Four men manned the jacks but it was impossible to apply equal pressure all around. The International Tractor has permitted the use of a central hydraulic pump and the heavier-type hydraulic jacks, and has eliminated unloading and loading of the collar and jacks at each pole. It has

made a compact, mobile combination that has materially reduced costs. This is typical of the jobs International tractors are called on to do. New uses for their versatility are turning up all the time. Ask the nearby International industrial power dealer or Company-owned branch for information on their ability to solve problems for you.

INTERNATIONAL HARVESTER COMPANY

(Incorporated)

180 North Michigan Avenue

Chicago, Illinois

INTERNATIONAL HARVESTER

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

NEW MAP of the PUBLIC POWER PROGRAM

Announcing the Publication of
*“Federal Financing and Location
of
Public Power Projects; 1933-1939”*

the most comprehensive, visual presentation ever made of the public power program. The map shows accurately the *cost and location* of all federal, district, state and municipal power projects.

The extensive operations of the R.E.A. on a national scale are portrayed *for the first time*. Few realize the growth, cost, and significance of this important development.

A simple color scheme and distinctive symbols, designating the different types of projects, facilitate use of the new map. More than 350 geographic localities in which federal funds have been expended are clearly indicated.

Suitable for framing and wall use (size 29 in. x 43 in.), the map should be ordered now by all those interested in the public power program.

Informative . Complete . Concise . Up-to-date

Price: \$2.00 a copy

Shipped unfolded in special mailing tube, postage prepaid in the United States and Canada.

P. U. R. Executive Information Service

1040 Munsey Bldg.

Washington, D. C.

TOMORROW'S TREND TODAY

IN TRANSFORMERS • •



Radiators
Tested At
100 Pounds
Pressure



YOU will appreciate the durability and strength of Pennsylvania Radiators when you consider that every one is tested at 100-pounds pressure! Such sturdy construction provides a positive solution to your radiator problem and is but one of many Pennsylvania improvements offered without additional cost to the user!

Pennsylvania TRANSFORMER COMPANY

1701 ISLAND AVE.,
N.S., PITTSBURGH, PA.

8

How long does it
stay "on the line?"

THE CLAIM

Chief emphasis, in the design of every C-E steam generating unit, is placed on the ultimate test of availability.

C-E units are designed for the finest possible performance with respect to efficiency, operating costs, quality of steam produced and range of output. In actual service C-E units have demonstrated time and time again that they possess all of these important characteristics.

Even greater effort is expended to design and build C-E units for long periods of trouble-free service with

only such infrequent outages for periodic inspection and cleaning as are required by good practice.

The success of C-E units in attaining high availability is proved on the right-hand page, not by an isolated single performance, but with the service records of four public utility companies.

Examine this evidence. Let it guide you to the selection of C-E equipment which adds to efficiency and economy of steam production the ability to "stay on the line."

C-E PRODUCTS INCLUDE ALL TYPES OF BOILERS, FURNACES, PULVERIZED FUEL SYSTEMS AND STOKERS; ALSO SUPERHEATERS, ECONOMIZERS AND AIR HEATERS

COMBUSTION

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)



Of all the yardsticks that are applied to a steam generating unit, none is so important as the sum total of hours of continuous operation without shutdowns. Efficiency, capacity range and low operating cost are indispensable requirements to be sure. But all of these are of no avail, in fact they are nonexistent except when the unit is in service.

THE EVIDENCE

94%

UTILITY PLANT—This C-E unit was on the line 94.2% of the entire period from July 1, 1938, when it was initially placed in service, to Sept. 15, 1939. Capacity, 312,000 lb. per hr.; press., 925 lb.; total temp., 830 F.

99%

UTILITY PLANT—Quotation from customer's letter: "During the initial operating period these two units were operated 2600 hours at an average steam flow of 239,200 lb. per hr. per unit before being removed from service for scheduled internal inspection. They have been operated, as required, for 5,970 hours during the first 13 months after installation without a single forced outage or reduction of capacity chargeable to the steam generating units." Availability to date—99%. Capacity (per unit), 275,000 lb. per hr.; press., 725 lb.; total temp., 825 F.

99%

UTILITY PLANT—One C-E unit on the line continuously from October 17, 1938 to April 22, 1939, when it was taken off for scheduled inspection and cleaning. The annual availability factor for 1938 was 98.8. Capacity, 690,000 lb. per hr.; press., 1390 lb.; total temp., 830 F. Three C-E high pressure units in another plant owned by the same company have an availability record of 95.6% for a period of eight years from 1931 through 1938.

98%

UTILITY PLANT—On the line 98.6% of time from December 30, 1938, when this C-E unit was placed in service, until May 21, 1939. Then it was taken out of service only for inspection. For most of this period, output averaged 170,000 lb. of steam per hr. and, for about a month, 208,400 lb. per hr. Capacity, 225,000 lb. per hr.; press., 725 lb.; total temp., 825 F.

COMBUSTION ENGINEERING COMPANY, INC., 200 MADISON AVENUE, NEW YORK, N. Y.
CANADA: COMBUSTION ENGINEERING CORPORATION, LTD., MONTREAL

A-470

ENGINEERING

Specify one of
ESLEECK
 THIN PAPERS
 For
 RECORDS, FORMS
 COPIES
 THIN LETTERHEADS
 DOCUMENTS
 ——————
 SEND FOR SAMPLES
 ——————
ESLEECK
 Manufacturing Company
 Turners Falls, Mass.

Public Utilities Fortnightly

THE review magazine of current opinion and news relating to public utilities. Conducted as an open forum for the frank discussion of both sides of controversial questions—economic, legal and financial; also gives trends in the present-day control of these companies—governmental competition—state and Federal regulation.

¶ The only magazine furnishing current and vital information on all subjects involving the financing, operation, and management of public utilities under governmental regulation and competition.

¶ A magazine of unusual value and current stimulation to all persons holding positions with, or having a financial interest in, public utilities.

¶ Issued every other Thursday—26 numbers a year—annual subscription \$15.00.

Published by

PUBLIC UTILITIES REPORTS, INC.

1038 Munsey Bldg., Washington, D.C.

DAVEY LINE CLEARING SERVICE

Tailored Trees

If you follow a certain style in trimming trees back from your wires, you don't need to fear that Davey men cannot duplicate it for you. They know them all:

- Top Clearance
- Drop Crotching
- Side Clearance
- And What Have You

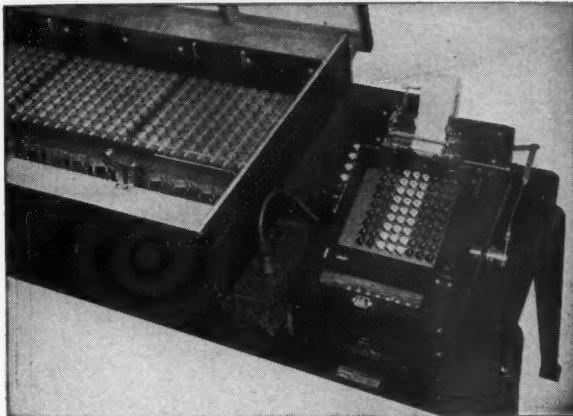
Davey service is a flexible thing, for Davey men constantly vary their technique to comply with special desires or circumstances in different sections of the country. Such a service should please you. Call a Davey representative, today.

THE DAVEY TREE EXPERT CO. KENT, OHIO

DAVEY TREE SERVICE

Rate Changes!

THE ONE-STEP METHOD



OF BILL ANALYSIS

R & S Bill Frequency Analyzer: developed for our Utility Rate Service. The kw.-hrs. billed are entered on the adding machine keyboard. A tape is prepared of all items and a consumption total accumulated which serves as a control. At the same time—through this *single* operation—the bill count for each kw.-hr. step is made by the electrically controlled accumulating registers.

Continued rate changes—checking load-building activities—need for current customer usage data—all are reasons why many companies are using R & S ONE-STEP SERVICE for analyzing information required in productive rate making. Monthly or annual bill frequency tables now produced in a few days instead of weeks and months.

Estimates promptly submitted. Such marked savings that analyses now can be carried on currently for much less than former cost of periodic studies.

Recording & Statistical Corporation

Utilities Division

102 Maiden Lane, New York, N. Y.

Boston

Chicago

Detroit

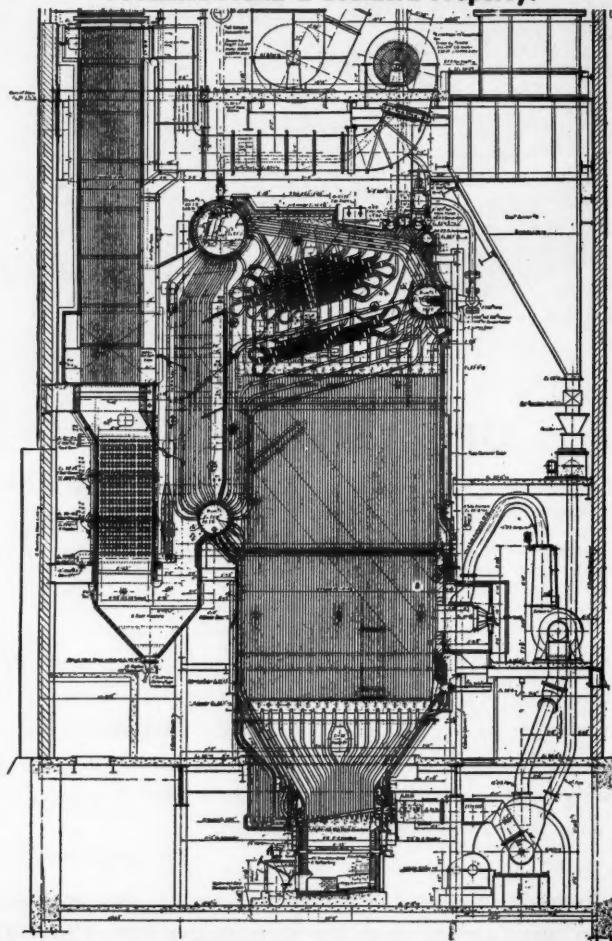
Montreal

Toronto

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

RILEY STEAM GENERATING UNIT

Installed in the plant of
Central Illinois Light Company, Peoria, Ill.
 (Commonwealth & Southern Property)



300,000 lbs. steam per hour, 900 lbs. pressure, 875° F. Steam Temperature

RILEY STOKER CORPORATION

WORCESTER, MASS.

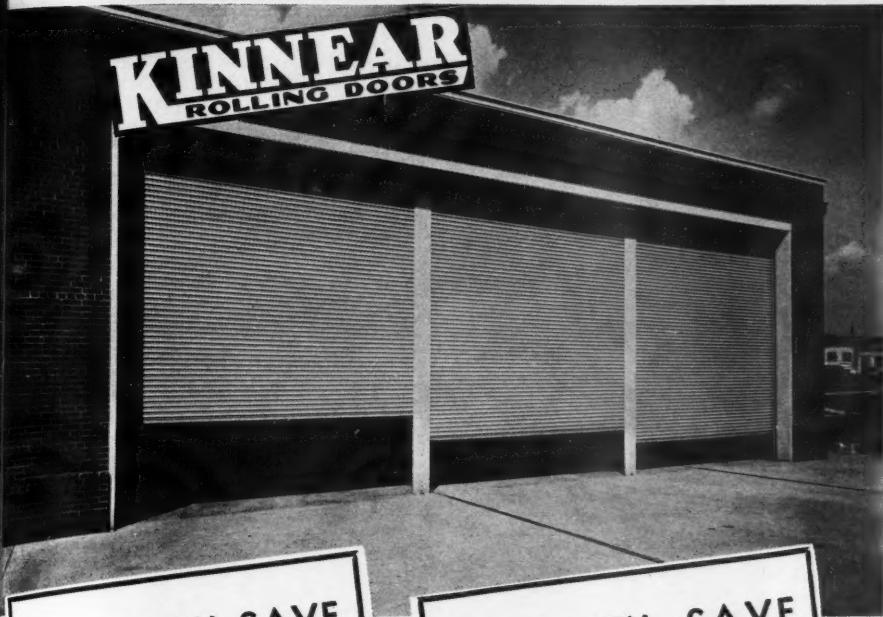
BOSTON NEW YORK PHILADELPHIA PITTSBURGH BUFFALO CLEVELAND DETROIT TACOMA
 ST. LOUIS CINCINNATI HOUSTON CHICAGO ST. PAUL KANSAS CITY LOS ANGELES ATLANTA

COMPLETE STEAM GENERATING UNITS

BOILERS - SUPERHEATERS - AIR HEATERS - ECONOMIZERS - WATER-COOLED FURNACES
 PULVERIZERS - BURNERS - MECHANICAL STOKERS - STEEL-CLAD INSULATED SETTINGS

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

KINNEAR ROLLING DOORS



How THEY SAVE YOU MONEY

Kinnear Rolling Doors give you extra wall space by opening upward and coiling compactly overhead. They save time by operating smoothly, easily and rapidly the year around—over snow, ice, swollen ground and other objects that hamper ordinary doors. They save repair costs by opening out of reach of damage. And they save installation problems because they are custom-built to meet your exact requirements.

Why THEY SAVE MONEY longer

Kinnear Rolling Doors give extra years of service because their efficient upward action, special ball-bearing operation, and effective counterbalance assure smoother performance, minimum wear. Their rugged, all-steel, interlocking-slat construction, strong steel jamb guides and other heavy-duty features mean greater durability. And their performance has been proved . . . numerous records tell of doors in daily use for more than a quarter of a century!

More than forty years of specialized experience in door manufacture has been utilized by Kinnear engineers in making Kinnear Rolling Doors more efficient, durable, and economical. Let us send you complete information!

The **KINNEAR** Manufacturing Company

2060-80 FIELDS AVENUE COLUMBUS, OHIO

Factories: Columbus, Ohio, and San Francisco, California

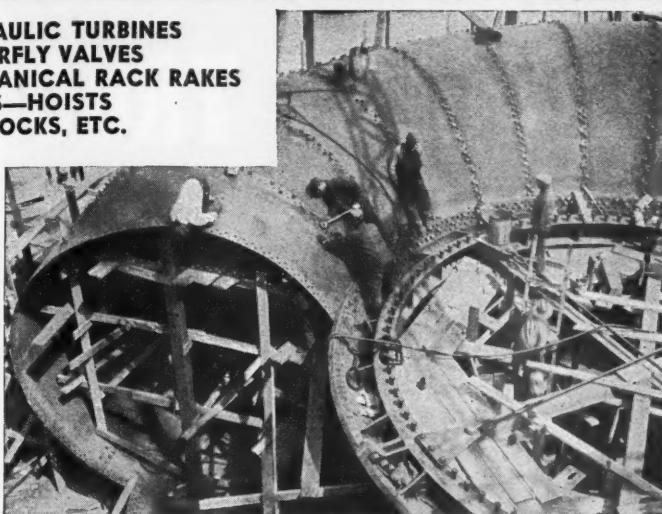


HYD
BUT
MEC
GAT
PEN

NE

T

**HYDRAULIC TURBINES
BUTTERFLY VALVES
MECHANICAL RACK RAKES
GATES—HOISTS
PENSTOCKS, ETC.**



Bolting the Spiral Casing before Riveting

NEWPORT NEWS SHIPBUILDING AND DRY DOCK COMPANY
Hydraulic Turbine Division
NEWPORT NEWS, VA.

MASTER-LIGHTS

ANNOUNCE TYPE "WS"

"A Master-Light For Every Need"

YOU OWE YOUR MEN THE BEST THERE IS

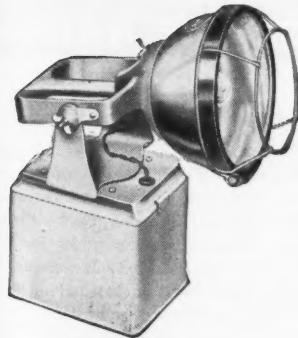
FASTER—BETTER LINE REPAIRS

Portable hand searchlights for repair, inspection and emergency crews. Most powerful and lightest weight made.

Many dry and rechargeable battery types.

MANUFACTURERS OF WORLD'S MOST POWERFUL HAND AND AUTOMOBILE SEARCHLIGHTS

Sent on approval



TYPE WS

**CARPENTER MFG. CO.
197 SIDNEY STREET—CAMBRIDGE, MASS.**

CHEVROLET TRUCKS FOR 1940



"THE THRIFT-CARRIERS FOR THE NATION"

56 models on 9 different wheelbases

Chevrolet builds and sells more trucks than any other manufacturer in America does, because the nation has recognized the superior value of Chevrolet trucks and now demands them for the greatest number of its hauling jobs. . . . This nationwide demand, of course, is just the total demand of thousands upon thousands of truck users who have found in Chevrolet the truck best suited to their needs.

. . . Chevrolet now is in a position to supply the hauling needs of even more industries and businesses than ever before. Now there are Chevrolet trucks in 56 models, on 9 different wheelbases. Among them is a model that will fit nearly every job, and that offers the traditional values that have made Chevrolet the nation's largest builder of trucks.

CHEVROLET MOTOR DIVISION, General Motors Sales Corporation, DETROIT, MICHIGAN

Featuring . . . CHEVROLET-BUILT BODIES . . . MASSIVE NEW SUPREMLINE STYLING . . . FAMOUS VALVE-IN-HEAD TRUCK ENGINE . . . NEW SUPER-COMFORT COUPE-TYPE CAB . . . NEW FULL-VISION OUTLOOK . . . POWERFUL HYDRAULIC TRUCK BRAKES . . . HYPOID GEAR REAR AXLES . . . FULL-FLOATING REAR AXLE on Heavy Duty models (Vacuum Power Brakes,

Two-Speed Rear Axle, optional on Heavy Duty models at extra cost.)

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)



Tested Progress

As a result of recent experience with the Company's newer products, the purchaser of B&W steam-generating equipment has available the marked advantages of important changes made recently in the Company's boilers.

He also has the assurance that these new designs are practicable. They have been tried out and are working—reliably and satisfactorily. For example, there are now in operation, 26 B&W Boilers with Two-Stage Furnaces, one of which has been in service since 1930. Five B&W Open-Pass Boilers are in regular service in two plants—two in operation since March 1937. Eight B&W Radiant Boilers are in operation—two for over a year. Over 240 Integral-Furnace Boilers are in operation. The oldest has been in service since 1933.

Opportunities for the power engineer are therefore greater today than ever, because of this new steam-generating equipment—of proved reliability—that is backed by a company with an established policy of protecting the users of its products.

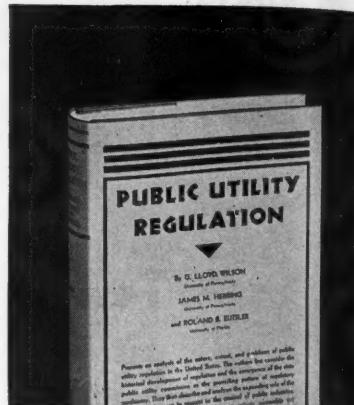
G-158

THE BABCOCK & WILCOX COMPANY
85 LIBERTY ST. NEW YORK, N. Y.

BABCOCK & WILCOX

Marshalling the facts— Interpreting issues and trends—

Here is a new book that will help the business man to arrive at sound viewpoints concerning the ever more important questions of public utility regulation. The book supplies the necessary analysis of the nature and extent of regulation today—critically and impartially considers its economic significance.



Public Utility Regulation

By G. Lloyd Wilson, Professor of Transportation and Public Utilities, University of Pennsylvania
 James M. Herring, Assistant Professor of Geography and Public Utilities, University of Pennsylvania
 and Roland B. Eutsler, Professor of Economics and Insurance, University of Florida

571 pages, 6 x 9, \$4.00

Chapter Headings

1. Regulation before the Establishment of State Commissions
2. State Versus Local Regulation
3. Regulation by State Commissions
4. Regulation of Accounting and Reporting
5. Rate Regulation
6. The Valuation of Public Utilities
7. Fair Return
8. Depreciation
9. Regulation of Service
10. Regulation of Security Issues
11. Regulation of Holding Companies
12. The Federal Government and the Public Utilities
13. Regulation of Motor Transportation
14. Federal Regulation of Interstate Commerce in Gas and Electricity
15. National Power Policy and the Federal Power Commission
16. Federal Power Projects
17. Rural Electrification
18. Federal Regulation of Communications
19. Government Ownership

This book does the job of research for the man who wants a full, detailed picture of the regulation situation. It is a correlation and analysis of facts from laws, records, court decisions, the literature, and other sources that have a bearing on the case. It represents the complete, integrated story—the history, the extent, the significance, the trend, of public utility regulation in the United States.

You will appreciate the pertinently critical discussion of:

- the emergence of regulation and its development through the state commissions pattern
- the problems of state versus local regulation
- the issues involved in regulation of accounting and reporting, rates and valuation for rate-making, rate of return, depreciation, service security issues, etc.
- the expanding role of the Federal Government in utility control, and its value in terms of the possibilities of sounder regulation
- Governmental experiences in undertaking power projects and promoting rural electrification
- their significance as instances of national economic planning
- the issues of governmental versus private ownership

Order from

PUBLIC UTILITIES REPORTS, INC.
MUNSEY BLDG. **WASHINGTON, D. C.**

"It's got everything the power line needs"



"Some labor saver, this rig! Picks up loaded reels and lays down the conductors, ready to hoist into place. It's a regular traveling storeroom, too; carries the necessary hardware, fittings and tools, and even a reel of guy wire."

Yes, and A.C.S.R. has everything a power line needs. High strength, resistance to corrosion, ample conductivity are all combined in this lightweight, long-lived conductor. Its dependability has been proved on thousands of miles of rural and hi-lines, some of them in service for over a quarter of a century.

For data on A.C.S.R., write ALUMINUM COMPANY OF AMERICA, 2134 Gulf Building, Pittsburgh, Pennsylvania.

A • C • S • R
Aluminum Cable Steel Reinforced



FOR RURAL LINES AND POWER TRANSMISSION

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

ROBERT A. BURROWS'
NEW 1939
UTILITY CHART

**ELECTRIC LIGHT AND POWER • GAS • TRANSPORTATION
WATER • COMMUNICATIONS • INVESTMENT COMPANIES**

● Showing at a glance ●

**"INTER-RELATION AND CAPITALIZATION OF THE PRINCIPAL PUBLIC
UTILITY HOLDING, OPERATING AND INVESTMENT COMPANIES
AS OF JUNE 1, 1939"**

**ALSO SERVICE AREA MAPS OF THE PRINCIPAL
PUBLIC UTILITY SYSTEMS IN THE UNITED STATES**

An indispensable reference for • Public Utility Executives • Utility Supply Companies • Banks • Brokers • Investment Counselors • Trust and Insurance Companies • Public Service Commissions • Investors • Or any one interested in any phase of the Public Utility Industry.

• • PLEASE NOTE • •

Chart is printed on 32-lb. high grade paper in ONE COLOR at \$2 per copy, or in NINE DISTINCTIVE COLORS at \$3 per copy, postage prepaid. Colors used in bar graphs afford an excellent chart for framing or desk top reference.

If UNFOLDED MAILING is desired add 25c for special 3-ply mailing tube.

QUANTITIES of ten or more copies, for complimentary distribution,
at reduced prices, on request.

Order from

PUBLIC UTILITIES REPORTS, Inc.

**TO HANG
Any Piping
Any Place!**



No matter what kind of piping is involved, or where it is to be hung, you'll find a Grinnell Pipe Hanger made for the job.

Grinnell Hangers are built to eliminate problems in installation, with design and materials that assure long, trouble-free service. Adjustments to correct sagging lines and provide even weight distribution are made easily, quickly and accurately after the pipe is erected.

Write for your copy of Catalog, "Adjustable Pipe Hangers and Supports." Grinnell Company, Inc., Executive Offices, Providence, Rhode Island. Branch offices in principal cities.

ADJUSTABLE PIPE HANGERS BY

GRINNELL
THE GRINNELL PIPE COMPANY

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

PROFESSIONAL DIRECTORY

• These pages are reserved for engineers, accountants, rate experts and others equipped to serve utilities in all matters relating to rate questions, appraisals, valuations, special reports, investigations, design and construction.



THE AMERICAN APPRAISAL COMPANY

INVESTIGATIONS • VALUATIONS • REPORTS

**PROPERTY EXAMINATIONS AND STUDIES for
ACCOUNTING AND REGULATORY REQUIREMENTS**

CHICAGO • MILWAUKEE • NEW YORK • WASHINGTON • And Other Principal Cities

DAY & ZIMMERMANN, INC.

ENGINEERS

NEW YORK

PHILADELPHIA
PACKARD BUILDING

CHICAGO

DESIGN
CONSTRUCTION
OPERATING COSTS

Ford, Bacon & Davis, Inc.
Engineers

RATE CASES
APPRaisALS
INTANGIBLES

VALUATIONS AND REPORTS

CHICAGO PHILADELPHIA NEW YORK LOS ANGELES

WASHINGTON

*Utility
Consultants*

LIVINGSTON, McDOWELL & CO.

CERTIFIED PUBLIC ACCOUNTANTS

117 SOUTH 17TH ST. PHILADELPHIA, PA.

*Audits
Taxes*

D. M. LIVINGSTON, C. P. A. (P.A.)
Former Member:
Pennsylvania Public Utility Commission
Member:
Pennsylvania Institute of Certified Public Accountants

C. WHITFORD McDOWELL, C. P. A. (P.A.) (MD.)
Member:
American Institute of Accountants
Pennsylvania Institute of Certified Public Accountants

J. H. MANNING & COMPANY

120 Broadway
New York

ENGINEERS

Field Building
Chicago

Business Studies
New Projects
Consulting Engineering

Purchase—Sales
Management

Valuations
Reorganizations
Mergers

Public Utility Affairs including Integration

PROFESSIONAL DIRECTORY (concluded)

SANDERSON & PORTER

ENGINEERS

VALUATION DEPARTMENT APPRaisALS AND RATE QUESTIONS

CHICAGO

NEW YORK

SAN FRANCISCO

BLACK & VEATCH

CONSULTING ENGINEERS

Appraisals, investigations and reports, design and supervision of construction of Public Utility Properties

4706 BROADWAY KANSAS CITY, MO.

JACKSON & MORELAND

ENGINEERS

PUBLIC UTILITIES—INDUSTRIALS
RAILROAD ELECTRIFICATION
DESIGN AND SUPERVISION—VALUATIONS
ECONOMIC AND OPERATING REPORTS

BOSTON NEW YORK

EARL L. CARTER

Consulting Engineer

REGISTERED IN INDIANA, NEW YORK, OHIO,
PENNSYLVANIA, WEST VIRGINIA, KENTUCKY

PUBLIC UTILITY
VALUATIONS AND REPORTS

814 Electric Building Indianapolis, Ind.

JENSEN, BOWEN & FARRELL

Engineers

Ann Arbor, Michigan

Appraisals - Investigations - Reports
in connection with
rate inquiries, depreciation, fixed capital
reclassification, original cost, security issues.

CHENEY AND FOSTER

Engineers and Utility Consultants

61 BROADWAY

NEW YORK

SLOAN & COOK

CONSULTING ENGINEERS

120 SOUTH LA SALLE STREET
CHICAGO

Appraisals—Original Cost Studies
Depreciation, Financial, and Other Investigations

FRANCIS S. HABERLY ENGINEER

*Appraisals—Property Accounting Reports
—Cost Trends*

122 SOUTH MICHIGAN AVENUE, CHICAGO

J. W. WOPAT

Consulting Engineer

Construction Supervision
Appraisals—Financial
Rate Investigations

1510 Lincoln Bank Tower Fort Wayne, Indiana

INDEX TO ADVERTISERS

[The Fortnightly lists below the advertisers in this issue for ready reference. Their products and services cover a wide range of utility needs.]

A

Aluminum Company of America	53
American Appraisal Company	56

B

Babcock & Wilcox Company, The	51
Barber Gas Burner Company, The	3
Black & Veatch, Consulting Engineers	57
Burroughs Adding Machine Company	13

C

Carpenter Manufacturing Company	49
Carter, Earl L., Consulting Engineer	57
Cheney and Foster, Engineers	57
Chevrolet Motor Division of General Motors Sales Corp.,	50
Chicago Wheel & Mfg. Co.,	27
Cities Service Petroleum Products	16
Cleveland Trencher Company, The	32
*Collier, Barron G., Inc.	
Combustion Engineering Company, Inc.	42-43
*Corcoran-Brown Lamp Division	
Crescent Insulated Wire & Cable Co., Inc.	20

D

Davey Tree Expert Company	44
Day & Zimmerman, Inc., Engineers	56
*Dillon, W. C. & Co., Inc.	
*Dodge Division of Chrysler Corp.	

E

Egry Register Company, The	33
Electric Storage Battery Company, The	21
Electric Testing Laboratories	27
Elliott Company	34
Esleek Manufacturing Company	44

F

Fletcher Manufacturing Company	38
Ford, Bacon & Davis, Inc., Engineers	56
Ford Motor Company	19

G

General Electric Company	Outside Back Cover
General Motors Truck & Coach Division	26
Grinnell Company, Inc.	55

H

Haberly, Francis S., Engineer	57
Hoosier Engineering Company	25

I

International Business Machine Corporation ...	37
International Harvester Company, Inc.	39

*Fortnightly advertisers not in this issue.

J

Jackson & Moreland, Engineers	57
Jensen, Bowen & Farrell, Engineers	57
Johns-Manville Corporation	29
Jones & Laughlin Steel Corp.	7

K

Kerite Insulated Wire & Cable Company, Inc., The	31
Kinnear Manufacturing Company, The	47

L

Lincoln National Life Insurance Company, The	30
Livingston, McDowell & Co.,	56
Lumbermens Mutual Casualty Co.	17

M

Manning, J. H. & Company	56
Merco Nordstrom Valve Company	
Inside Back Cover	

N

National Carbon Company, Inc.	15
Neptune Meter Company	5
Newport News Shipbuilding & Dry Dock Company	49

P

Pennsylvania Transformer Company	41
Pittsburgh Equitable Meter Company	
Inside Back Cover	

R

Railway & Industrial Engineering Company	30
Recording & Statistical Corp.	45
Remington Rand, Inc.	9
Ridge Tool Company, The	22
Riley Stoker Corporation	46
Robertshaw Thermostat Company	23
Royal Typewriter Company, Inc.	28

S

Sanderson & Porter, Engineers	57
Sangamo Electric Company	21
Silex Company, The	Inside Front Cover
Sloan & Cook, Consulting Engineers	57
Superior Switchboard & Devices Co., The	24

V

Vulcan Soot Blower Corp.	11
-------------------------------	----

W

Wall, P., Mfg. Supply Co.	24
Weston, Byron Company	35
Wopat, J. W., Consulting Engineer	57

Z

Zenith Electric Co.	38
--------------------------	----

1930

57
57
29
7

31
47

e 30
56
27

56

over

15
5
49

41
over

30
45
9
22
46
23
28

57
21
over
57
24

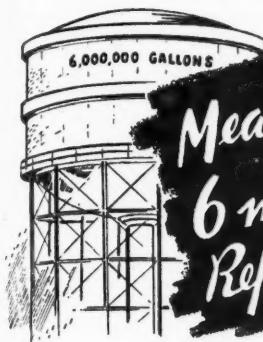
11

24
35
57

38

This





CONCLUSIVE PROOF THAT

PITTSBURGH METERS WEAR IN WHERE OTHERS WEAR OUT!

An endurance test recently conducted by a large Midwestern Waterworks department conclusively proved that Pittsburgh IMO Meters will lower maintenance costs by reducing the frequency and expense of meter repairs.

On this particular run the IMO measured 6,000,000 gallons at variable flow rates before completion of the test. Figuring a good average yearly consumption of water on a domestic service to be 60,000 gallons, the amount of water registered would be equivalent to about 100 years of service.

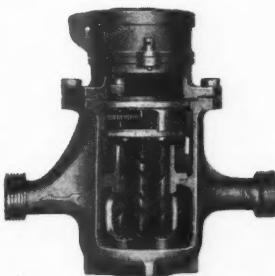
Examination of the meter after the test showed not even slight wear evidenced on the meshing surfaces of the three rotor screws. Only one part of the meter was sufficiently worn to justify replacement, and this item only cost 44 cents. After this replacement was made the meter was then given the usual factory accuracy test for new meters, with the following results:

20 G.P.M. — 99.0%
1 G.P.M. — 101.0%
1/4 G.P.M. — 96.5%
1/12 G.P.M. — 80.0%

This showing, while not up to new IMO meter standards, was still better than the accuracy requirements imposed on the best new disc meters.

If the old saying, "The First Hundred Years Are The Hardest," still holds true, the Pittsburgh IMO will save Waterworks men thousands of dollars through its longer life and its ability to accurately measure extremely low flows.

The whole story is told in Bulletin W-S29. Write for your copy today.



PITTSBURGH FEATURES

LOW FLOW ACCURACY
SUSTAINED ACCURACY
SILENT OPERATION
LONGER LIFE
LOWER MAINTENANCE

PITTSBURGH EQUITABLE METER COMPANY MERCO NORDSTROM VALVE CO.

NEW YORK • BUFFALO • PHILADELPHIA
KANSAS CITY • TULSA • LOS ANGELES

Main Office - PITTSBURGH, PA.

DES MOINES • CHICAGO • COLUMBIA
MEMPHIS • OAKLAND • HOUSTON

OVER 800 CUSTOMERS IN 46 STATES



OUR DEBT TO OLD BOHEMIA

"**M**Y grandfather would have got a big kick out of this!" Frank Cermak ran a caressing finger around a transformer insulator ready for the kiln. "He was a skilled pottery maker in Bohemia—turned out beautiful urns and vases. But he never tackled a job like this. It's about the biggest we've done."

Frank Cermak, head of the G-E Porcelain Department, isn't afraid of big jobs. His people have been skilled porcelain craftsmen for generations. His father, back in 1891, organized the department that Frank now manages.

Frank's son, too, is following the family tradition.

So, in General Electric ancient skills are passed on from father to son. And they play an important part in achieving the high quality of equipment so essential to dependable electric service. Men like Frank Cermak, in effect, are co-operating with every electric-service company, doing their bit to push the cost of electric power ever downward.

That's the important contribution of the electrical industry toward that basic American objective of *more goods for more people at less cost*.

GENERAL ELECTRIC



90-552B